1987

ALASKA PENINSULA - ALEUTIAN ISLANDS AREAS SALMON AND HERRING ANNUAL MANAGEMENT REPORT

By:

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Regional Information Report¹ No. **4688-38**

Alaska Department of Fish and Game Division of Commercial Fisheries 211 Mission Road Kodiak, Alaska 99615

April 1988

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Figure 1. ALASKA PENINSULA - ALEUTIAN ISLANDS Management Area, Cape Menshikof to Unalaska A. NORTHERN DISTRICT Island. Districts (Letters A - G), Sections (Numbers) 1. CINDER RIVER SECT BEAR RIVER HERENDEEN-MOLLER BAY 3. ILNIK NORTH PENINSULA **NELSON LAGOON** 4. THREE HILLS CARIBOU FLATS ALEUTIAN ISLANDS BLACK HILLS AKUTAN DISTRICT H. UNALASKA DISTRICT BEAVER INLET SECTION B. NORTHWESTERN DISTRICT 2. UNALASKA BAY 3. MAKUSHIN BAY IZEMBEK-MOFFET BAY SECTION 4. KASHEGA BAY BECHEVIN BAY SOUTHERN 3. URILIA BAY DUBLIN BAY CHIGNIK **AREA** SOUTH CENTRAL DISTRICT PAVLOF BAY SECTION SOUTH PENINSULA 2. CANOE BAY MINO CREEK-LITTLE COAL BAY UNIMAK DISTRICT 4. BEAVER BAY SOUTHWESTERN DISTRICT F. SOUTHEASTERN DISTRICT IKATAN BAY SECTION 5. DEER ISLAND BALBOA BAY SECTION MORZHOVOI BAY 6. BELKOFSKI BAY SHUMAGIN ISLANDS SECTION THIN POINT 7. VOLCANO BAY WEST STEPOVAK

EAST STEPOVAK

GENERAL

COLD BAY

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I. GENERAL INFORMATION

The Alaska Peninsula-Aleutian Islands Area includes all of the Aleutian Islands, the Bering Sea (north) side of the Alaska Peninsula west of Cape Menshikof and the Pacific (south) side of the Alaska Peninsula located west of Kupreanof Point. No commercial salmon or herring fishing effort presently occurs west of Unalaska Island.

The area constitutes permit Area M for both salmon and herring. During January through June, Area T (Bristol Bay) salmon fishermen are allowed to fish during the open season in the Port Heiden and Cinder River Sections. During August through December Area T fishermen can commercially fish in the Ilnik, Port Heiden, and Cinder River Sections.

Unlike salmon which is under limited entry to commercial fishing, herring fishing is open to anyone wishing to purchase an Area M herring interim use permit from the state.

The area headquarters is located at Cold Bay with other field offices located at Sand Point and Port Moller. The Dutch Harbor office although basically a shellfish-bottomfish office is vital to management of herring and salmon stocks. Assistance in monitoring the Port Heiden and Cinder River stocks is given by the Chignik Area salmon staff.

An ADF&G pilot equipped with a Piper Supercub (on wheels) and a DeHaviland Beaver (on wheel floats) provides much of the aircraft needs. A second pilot with a Supercub (on wheels) is based at Chignik and assists in Alaska Peninsula Area operations. Local air taxis utilized include Aleutian Air (at Dutch Harbor), Peninsula Airways and Kenai Floatplane Service. The Alaska Department of Public Safety Gruman Goose is also used.

The M/V RESOLUTION is used to transport supplies and to monitor the South Unimak June fishery.

Typing, answering many of the telephone calls, and much of the facility maintenance is done by Jean Shaul at no cost to the state.

1988 FIELD PERSONNEL

<u>Employee</u>	Title and/or Location/Duty
Arnie Shaul H, M	Area Management Biologist
Len Schwarz H, M	Assistant Area Management Biologist
Hal Terry H, M	Airplane Pilot I
Bob Berceli H, M	FB I-Herendeen Bay, Nelson River, Cold Bay, Dutch Harbor
Mike Whelan H, M	FT III-Herendeen Bay, Nelson River Cold Bay, Dutch Harbor
Rob Sylvester H, M	FB I-Port Moller, M/V Resolution, Canoe Bay
Steve Krueger M	FT III-Bear Lake, Nelson River
Joe Krueger H	FT III-Bear Lake
Chris Sundby M	FB I-Nelson River, Canoe Bay, Bear Lake
Jim McCullough R	Area Research Biologist
Tracy McKinion R	FT III-Port Moller
Joann Mitchell R	FT I-Port Moller
Mark Weinberger R	FB I-King Cove
Deborah Robinson R	FT I-King Cove

FT I-King Cove

H = Herring
M = Salmon Management
R = Salmon Research

Tim Engbring R

COMPANIES PURCHASING SALMON AND HERRING IN ALASKA PENINSULA AND ALEUTIAN ISLANDS AREAS DURING 1987

- (S) Salmon (H) Herring
- (S) Alaskan Fisheries Company 333 W. 4th, Suite 315 Anchorage, Alaska 99501 (907) 276-4551
- (S) AnPac, Inc. P.O. Box 92520 Anchorage, Alaska 99509 (907) 561-1399
- (S) Dutch Harbor Seafoods, LTD. P.O. Box 97019 Redmond, WA 98073 (206) 881-8181
- (S) New West Fisheries, Inc. 1100 11th Street Bellingham, WA 98225 (206) 734-9050
- (S) (H) Oceanic Seafoods, Inc. 8221 44th Avenue West Mukilteo, WA 98275 (206) 745-3398
- (S) (H) Peter Pan Seafoods, Inc. 1000 Denny Bldg. Seattle, WA 98121 (206) 728-6000.
- (S) (H) Trident Seafoods Corporation 5303 Shilshole Ave. N.W. Seattle, WA 98107 (206) 783-3818

- (H) Alyeska Seafoods, Inc. P.O. Box C5030 Seattle, WA 98105 (206) 323-3200
- (S) Crusader Fisheries, Inc. P.O. Box 692 Kodiak, AK 99615 (907) 485-3147
- (H) Farwest Fisheries, Inc. P.O. Box 9287 Seattle, WA 98109 (206) 285-0300
- (H) North Coast Seafood Processor P.O. Box 17538 Seattle, WA 98107 (206) 789-5108
- (H) Queen Fisheries, Inc. (East Point Seafoods) Bldg. C-3; Fishermen's Terminal Seattle, WA 98119 (206) 481-2296
- (S) SnowPac Products, Inc. P.O. Box C-3001 Bothell, WA 98104 (206) 481-2296

ESTIMATED VALUE OF 1987 COMMERCIAL SALMON FISHERY EX-VESSEL

South Peninsula	<u>Kings</u>	<u>Sockeye</u>	<u>Cohos</u>	<u>Pinks</u>	<u>Chums</u>	<u>Total</u>
Poundage	180,361	8,755,954	1,426,984	4,222,075	9,848,087	24,433,461
Average Weight Value \$\$\$	19.7 216,000	6.0 14,447,000	6.3 1,398,000	3.5 1,773,000	7.2 3,841,000	21,675,000
<u>Aleutian Islands</u>						
Poundage	0	368	0	0	0	368
Average Weight Value \$\$\$	0	4.9 600	0	0	0	600
Northwestern District						
Poundage	1,460	795,380	159,155	2,744	1,575,325	2,534,064
Average Weight Value \$\$\$	24.3 1,800	5.5 1,289,000	8.1 156,000	3.2 1,200	7.4 583,000	2,031,000
Northern District						
Poundage	252,680	7,151,518	1,430,755	12,741	913,044	9,760,738
Average Weight Value \$\$\$	17.9 303,000	6.7 11,800,000	9.4 1,402,000	4.8 5,000	5.9 356,000	13,866,000
North Peninsula Total						
Poundage	254,140	7,946,898	1,589,910	15,485	2,488,389	12,294,802
Average Weight Value \$\$\$	17.9 305,000	6.6 13,089,000	9.3 1,558,000	4.4 6,000	6.7 939,000	15,897,000
TOTAL ALASKA PENINSULA-ALEUTIAN ISLANDS AREAS						
Poundage Average Weight	434,501 18.6	16,703,220	3,016,894	7,237,560	12,336,456	36,728,631
Value \$\$\$	521,000	6.3 27,536,600	7.6 2,956,000	3.5 1,779,000	7.1 4,780,000	37,572,600
ESTIMATED VALUE OF SOU	MH UNIMAK A	ND SHUMAGIN I	SLAND JUNE FI	SHERY (These	figures are	included above)
Value \$\$\$	147,000	9,113,000	0	4,000	1,397,000	10,661,000

ESTIMATED VALUE OF 1987 COMMERCIAL SALMON FISHERY

First Wholesale

	<u>Kings</u>	<u>Sockeye</u>	<u>Cohos</u>	<u>Pinks</u>	<u>Chums</u>	<u>Total</u>
Fish	750,000	39,450,000	5,200,000	6,650,000	13,230,000	65,280,000
Roe	_50,000	3,050,000	_550,000	430,000	1,670,000	5,750,000
Total	\$800,000	42,500,000	5,750,000	7,080,000	14,900,000	71,030,000

ESTIMATED VALUE OF 1987 COMMERCIAL HERRING FISHERY

	Ex-Vessel	<u>Wholesale</u>
South Peninsula Food/Bait South Peninsula Sac-Roe North Peninsula Sac-Roe Eastern Aleutians Food/Bait	0 \$ 243,000 350,000 	0 540,000 870,000 <u>2,250,000</u>
Total	\$1,344,000	\$3,660,000

Values are obtained by selecting a price that approximates an average and multiplying the price by the numbers of pounds. Because prices fluctuate throughout the year and between buyers and sections, the values listed are estimates.

SHOREBASED PROCESSING FACILITIES FOR SALMON AND HERRING IN ALASKA PENINSULA AND ALEUTIAN ISLANDS AREAS

Company	Plant Location	Species
Trident Seafoods Corp.	Sand Point	Salmon & Herring
Trident Seafoods Corp.	Akutan	Salmon & Herring
Peter Pan Seafoods, Inc.	King Cove	Salmon & Herring
Peter Pan Seafoods, Inc.	Port Moller	Salmon & Herring
Alyeska Seafoods, Inc.	Unalaska	Herring
East Point Seafoods	Dutch Harbor	Herring

Nearly all the above would probably have handled both salmon and herring if the fish were available at the right time. Numerous floating processors were also in the area, several owned by the above companies.

Since 1984, the Peter Pan Seafoods plant in King Cove has been the only facility to can salmon in the Alaska Peninsula and Aleutian Islands areas.

II. SALMON

GENERAL BACKGROUND

The salmon fisheries in the Alaska Peninsula Area date back to at least 1888 when canneries were constructed (but remained for a very brief period of time) at Orzinski Bay (Orzenoi Bay) and Thin Point Cove. However, the earliest catch records for the Alaska Peninsula Area date back only to 1906. The first Aleutian Islands Area salmon catches were in 1911.

Early catches were dominantly sockeye with a few kings and cohos. The first year in which pink and chum salmon catches exceeded 500,000 each was 1916. Area wide historical catches are listed in Table SA 1.

A large portion of fishermen's earnings along the South Peninsula come from harvesting migrant salmon. The South Peninsula interception fisheries include the South Unimak (also known as False Pass) June fishery, the Shumagin Islands June fishery, and the Southeastern District Mainland (also known as Balboa-Stepovak or just Stepovak) fishery.

Tables SB 1-4 contain data regarding the Southeastern District Mainland fishery.

Prior to July 25 most (a portion is managed for local stocks) of the Southeastern District Mainland fishery is managed on the basis of Chignik destined sockeye.

After July 25, the entire area is managed on a local stock basis. Due to the relative close proximity to Chignik, it is possible to adjust the Southeastern District Mainland fishery to the actual situation at Chignik. Six percent of the estimated Chiqnik destined catch is allocated to the Southeastern District Mainland fishery. Only set gillnets are allowed in the Southeastern District Mainland fishery prior to July 11, after which both set gillnet and seine gear are allowed. For further

details about this fishery check the regulations under 5 AAC 09.360. SOUTHEASTERN DISTRICT SALMON MANAGEMENT PLAN later in this report.

Tables SC 1-15 contain data regarding the South Unimak and Shumagin Islands June fisheries.

The South Unimak and Shumagin Islands June fisheries date back to at least 1911. The dominant stocks targeted by these fisheries are Bristol Bay bound sockeye, which has caused controversy between Peninsula-Aleutian and Bristol Bay fishermen for many years. During the late sixties, the South Unimak-Shumagin fisheries were open to fishing seven days per week regardless of Bristol Bay run strength. This caused many debates at Fish and Game Board meetings, with special meetings occurring over this one issue during the early seventies. South Unimak-Shumagin June management strategy was decided on a year by year basis during 1972-74 due to very low anticipated Bristol Bay sockeye returns.

Beginning in 1975, the Alaska Board of Fisheries implemented an allocation plan where the South Unimak-Shumagin June fisheries would be managed on guideline harvest levels allocated by the basis of predicted Bristol Bay inshore sockeye harvests. Based on historical catch information, 6.8 percent of the forecasted inshore Bristol Bay harvest was allocated to the South Unimak June fishery and 1.5 percent allocated to the Shumagin Islands. To reduce the possibility of overharvesting any segment of the Bristol Bay run, the guideline harvest level is allocated to discrete time periods based on historical catch data. The allocation by time period is listed as follows:

				South Unimak	<u>Shumagin Islands</u>
June	1	_	11	5%	9%
	12	-	18	29%	28%
	19	-	25	51%	41%
	26	-	30 Totals	$\frac{15\%}{100\%}$	22% 100%

If the guideline harvest for an individual time period is not reached, the unharvested portion is lost to the fishery. If the guideline harvest for an individual time period is exceeded, the overharvest is subtracted from the total season allocation.

Chum salmon are taken incidental to sockeye during the South Unimak-Shumagin Islands June fisheries. An unusually large harvest of approximately 1.1 million chums during 1982 along with failing fall Yukon River chum run brought pressure from fishermen in the Arctic-Yukon-Kuskokwim (AYK) Region to curtail eliminate the fishery. Unlike the sockeye which primarily bound for one area (Bristol Bay) chums are headed for a variety of areas ranging from Japan to Kotzebue to Prince William Sound. A significant portion is destined for AYK, although not necessarily fall Yukon River.

To limit the chum by catch, the Board of Fisheries placed further restrictions in the form of windows on the South Unimak-Shumagin fishery beginning in 1984. The windows consist of allowing no more than 96 hours of fishing during a seven day period and no more than 72 consecutive hours.

During 1986 only, the following additional restrictions were used.

- No fishing before June 11.
- 2. No fishing during June 26-30 and the loss of that period's sockeye allocation.
- A 400,000 chum salmon catch ceiling.

These restrictions plus a low availability of sockeye resulted in only 470,000 of the 1,107,000 sockeye allocation being taken.

During the fall 1986 Board of Fisheries meeting, the Board adjourned with three members resigning without taking any action.

A tagging program was carried out during 1987, indicating that chums go to a variety of places after passing the South Peninsula in June. The Yukon River fall contribution was small during this

year. Details of the study will be printed in a later Alaska Department of Fish and Game publication.

During the spring 1988 meeting, the Board of Fisheries placed a 500,000 (fish) chum cap on the South Unimak-Shumagin Islands June fisheries. It may be very difficult or impossible to harvest the sockeye allocation during many years due to the chum cap.

For more details regarding the South Unimak-Shumagin Islands June fisheries, check the regulations under 5 AAC 09.365. **SOUTH UNIMAK AND SHUMAGIN ISLANDS JUNE SALMON MANAGEMENT PLAN** later in this report.

Table SC 16 lists the units of gear present in the South Unimak-Shumagin June and Southeastern District Mainland Fisheries during June. Tables SD 1-3 contain South Peninsula catch and total run information.

The major species produced by South Peninsula streams are pink salmon. Runs fluctuate dramatically over time due to the magnitude of parent escapements and environmental conditions. During the 1973-87 period commercial catches have varied (not including June catches) from 36,000 in 1973 to 10,669,000 in 1984. Most systems produce large runs on both even and odd year cycles, except most of the streams between Cold Bay and Unimak Bight which are basically even year producers. Dry Lagoon and Apollo Creeks on Unga Island also seem to be even year cycle systems. Pink salmon runs usually arrive in force about July 20 and peak about August 1. After August 15-20 the fish quality is usually poor due to water marking.

Chum salmon are the second most important locally produced species along the South Peninsula. Not including June catches, the 1962-87 chum salmon catches ranged from 34,000 fish in 1974 to 1,399,000 during 1986. Chum salmon runs are somewhat more stable than pink salmon due to the presence of more than one age

class and the tendency for chums to select spawning locations which are less susceptible to scouring and freezing. Chum salmon runs start earlier and last longer than those of pink salmon and there is a large variation in timing between different chum stocks.

The South Peninsula has numerous sockeye salmon stocks. Most stocks are small although Thin Point and Middle Lagoon (Morzhovoi Bay) have a history of substantial runs during the 1920's and It is believed that these two systems can be brought back to their former levels by a good escapement monitoring and Thin Point and Morzhovoi enforcement program. Lakes suspected of having rearing capacities greatly in excess of the spawning capacities. Therefore the potential to substantially larger runs through supplemental methods exists. Orzinski (Orzenoi) Lake is an important contributor to Southeastern District catches.

Post June South Peninsula sockeye catches are often substantial. Many of the fish are taken in the Balboa-Stepovak fishery which targets on Chignik destined sockeye. However, a substantial number (50,000 to 350,000) are taken annually in the Shumagins and lesser numbers taken throughout the balance of the area. Many of these fish are undoubtedly bound for other areas, although South and North Peninsula streams are contributors.

Most South Peninsula coho are taken while the fishery is targeted on pink and chum salmon during mid July to mid August and a smaller amount during September. The fishery is usually closed during late August to achieve good pink and chum escapements.

Historically South Peninsula coho catches have demonstrated long periods of different abundance levels. From 1923 through 1946 catches stayed at a high level, averaging 148,000 fish annually. During 1947 through 1958 the average fell to 50,000. The 1959-77 average South Peninsula coho catch was only 12,000. However

catches jumped to an average of 218,000 during 1978-87. The record high catch was 356,500 coho during 1979. It should be pointed out that the Aleutian Islands catches were combined with the South Peninsula during 1928 through 1950, however, the Aleutian contribution was probably insignificant based on years when Aleutian catches were kept separate. The record Aleutian Islands Area documented coho catch was 4,400 fish in 1918 and the catch is less than 200 during most years.

King salmon are of minor importance along the South Peninsula averaging only 8,700 fish during 1978-87. There are no king salmon streams along the south side of the Alaska Peninsula Area and the Chignik River is the only king producer on the Pacific side of the entire Alaska Peninsula.

The Aleutian Islands Area produces runs of sockeye, coho, pink, and chum salmon. However, it is only the pink salmon which have proven to be of major commercial importance.

The following islands produce large pink salmon runs during some years:

Unalaska Atka Umnak Adak Amlia Attu

Tanaga, Kanaga, and Kiska all have at least one important pink salmon stream.

Except for occasional fishing on Umnak Island during the early nineteen sixties and probably the fifties, all commercial effort has been confined to Unalaska Island, with the exception of a 1963 Attu expedition.

It is quite likely that Attu salmon runs are heavily impacted by Japanese high seas fishing as the Japanese are still allowed to fish in the proximity of the island. The other islands may contribute by a lesser degree to foreign fishing.

Aleutian Islands pink salmon runs tend to be much larger during the even year cycle. Unalaska Bay has a history of producing large runs during both odd and even years.

Pink salmon runs are very unstable in the Aleutians. They produce legendary high returns at times and then collapse for no apparent reason.

Aleutian pinks and sockeyes tend to be smaller than those of Alaska Peninsula stocks.

Prior to 1979, markets were a limiting factor at Unalaska. There was often no market unless pink salmon abundance warranted sending tenders from False Pass or King Cove. Some fish (usually sockeye) were salted by the fishermen. From 1979 to the present, most fish have been processed by buyers at Unalaska-Dutch Harbor or Akutan.

The record Aleutian pink salmon catch was approximately 2.6 million fish during 1980 (roughly 2 million were taken out of Makushin Bay alone).

Unalaska pink runs seem to arrive about the same time as those of the South Peninsula. However there is considerable variation from year to year as to when pinks enter Unalaska streams as well as timing between various streams. This is a different situation than found on the South Peninsula where pink salmon entry into streams is less variable. During large runs Unalaska pinks may trickle in throughout September.

Tables SE 1-15 contain historical catch and total run information regarding North Peninsula salmon.

It should be noted that except for Bear River sockeye, Sapsuk River sockeye, and Sapsuk River kings and chums from 1962 through 1985, all escapement figures used in this report are indexed

totals. The indexed totals are likely close to but a little lower than the actual totals. Consequently there will be differences after 1984 between figures used in Area Management Reports and those in formally published reports (Technical Data Reports, Bulletins, etc.). The indexed totals continue to be used for historical comparisons.

Sockeye are the dominant species along the North Peninsula. The major producing systems are Bear River, Nelson Lagoon, Meshik River, Sandy River, Ilnik, and Urilia Bay. Bear River is the top producer with Nelson Lagoon being second. In addition to those listed above, there are numerous less important systems.

North Peninsula sockeye catches during 1962-87 averaged 851,000 ranging from 172,000 fish during 1973 to 2,601,000 (record high) during 1985.

The peak of North Peninsula sockeye catches are taken during the first 10 days of July. The Urilia Bay return is somewhat earlier. Most returns are completely through the fishery by the end of July. However, Bear River's return lasts well into September and sometimes has a second peak in August. There is also a late (early August) small sockeye return in Nelson Lagoon, these fish are believed to spawn in lakes (mainly tributaries of the David's River) along the west side of the Nelson Lagoon drainage.

Chums are the second most important North Peninsula salmon species. Catches have averaged 442,000 during 1978-87. The record catch was 797,000 fish during 1984.

The major chum producing locations are the Izembek-Moffet Bay, Herendeen-Port Moller Bay, Bear River, and Bechevin Bay Sections.

The North Peninsula chum runs (with some variation among stocks) usually begin in June and continue at a steady rate throughout

July and through early August. Nelson Lagoon's run (occasionally strong) begins in late July and is of short duration. Trader's Cove and Warm Springs chum returns occur during August through early September.

Coho are the third most important commercial salmon species on the North Peninsula. Due to the lateness of the runs, virtually no fishing effort was directed towards North Peninsula coho until 1948, and then only in limited locations. During recent years more stocks have been exploited. However, there are undoubtedly stocks on both sides of the Alaska Peninsula which have not been identified. Escapement information is very limited.

North Peninsula coho catches averaged 33,500 fish per year from 1948 through 1978. The catch jumped dramatically to a 156,800 average during 1979-87, with catches ranging from 75,100 during 1983 to 238,000 in 1982.

Nelson Lagoon is the largest North Peninsula coho producer. Other major runs include Port Heiden, Cinder River, Ilnik, and Swanson Lagoon.

There is some variation among stocks, however coho returns generally begin about August 1, peak during the last two weeks in August and the first week in September, and are essentially over by September 15. However, there are exceptions. For example, the Ocean River coho run seems to peak during late September. There is also a lot to be learned concerning North Peninsula coho stocks.

King salmon are only the fourth ranked salmon species in importance along the North Peninsula. However, they are extremely important to some individuals. For example, kings are one of the two most important species at Port Heiden and are an important contributor to the Nelson Lagoon economy.

Economically king salmon are the fourth most important species along the North Peninsula. The record catch was 44,200 fish during 1916. The harvest has averaged 19,800 fish during 1978 through 1987 ranging from 11,700 in 1986 to 30,100 during 1982.

Nelson Lagoon, Port Moller, Port Heiden are the major North Peninsula king salmon producing areas.

The king salmon run begins during the last week in May, peaks during mid and late June then gradually declines until they are essentially over in late July. Most spawning occurs during the first half of August.

Pink salmon are the least important North Peninsula salmon. Returns are quite small and value per fish is lower than the other species. However Bechevin Bay has occasionally produced large pink salmon returns during even numbered years.

It is not known why the North Peninsula is not a much larger pink salmon producer than it is. Some of the streams look like good producers and do occasionally receive large enough pink salmon escapements to produce a substantial return. However the returns fail to build and there likely is a feature in the marine environment which is not conducive to good pink salmon survival. The one area (Bechevin Bay) that has produced large pink salmon returns possible should be considered part of the South Peninsula.

1987 COMMERCIAL SALMON FISHERY

Table SF 1 contains the season catch by statistical area, section and district. Table SF 2 lists the harvest by statistical week in specific locations. Table SF 3 contains the catch by gear and district.

Catch rates in the Southeastern District Mainland fishery were amazingly high during 1987 and only four days (all during June) were needed to take the allocated percentage of Chignik destined sockeye. The estimated Southeastern District Mainland interception of Chignik destined sockeye through July 25 was 147,000 (6.91% of total Chignik destined sockeye catch), of which 10,700 were taken incidental to fishing for local stocks north of Osterback Creek and Dent Point during July.

During 1987 the sockeye guideline harvest levels (GHL's) were 140,000 and 635,000 for the Shumagins and South Unimak, respectively. Due to the low GHL's (lowest since 1978) and the fact that the fishermen expressed a desire to minimize the chum catch, there appeared to be no need to open the fishery during the first week of June (when the catch normally has a high chum percentage). Consequently, the first fishing period was announced for 8 June. However, little activity occurred until 10 June due to a price dispute.

Catch rates were high in the Shumagins, requiring only one day per quota period to achieve the season GHL once the price dispute was settled. The situation was quite different at South Unimak where 11 days of fishing time were required from 10 June through 26 June to take the sockeye allocation.

The actual South Unimak catch was 652,000 sockeye and 406,000 chums while 141,000 sockeye and 37,000 chums were taken in the Shumagins.

average of 2,016,000 and close to the 1985 parent escapement of 1,615,000.

The Unalaska pink salmon run was extremely poor. There was no commercial catch and peak escapements in the traditional fishing area totaled less than 60,000. Only two streams (Iliulik and Kashega) had good escapements. The reasons for such a poor run are basically a disastrous 1985 parent escapement followed by a severe flood during November 1985.

The South Peninsula July-September 1987 chum salmon run was very strong with a catch of 933,000 and an escapement minimally estimated at 621,000 (indexed total). The 1977-86 average catch and escapement were 874,000 and 511,000 respectively.

The North Peninsula chum salmon runs were slightly stronger than expected. The catch of 369,000 was comparable to the previous 10 year average of 418,000. The 1987 catch was anticipated to be similar to the 1986 catch of 271,000. Escapements were generally excellent, an indexed total estimated 511,000 (slightly above the previous 10 year average of 491,000).

In 1987, the South Peninsula harvest of sockeye, excluding the June South Unimak-Shumagin Island Section harvest and estimated Chignik interception through July 25 in the Southeast District Mainland fishery, was 646,000 fish. The South Peninsula indexed total escapement of sockeye was 44,600 fish.

During 1986, the South Peninsula sockeye catch excluding the estimated (pre July 26) Chignik interception and South Unimak-Shumagin June catch was 611,000. The indexed total escapement was 48,000. The average 1978-85 catch was 260,000 with an average indexed total escapement of 51,600. The years immediately prior to 1978 are not included due to very limited fishing while pink salmon runs were being rebuilt.

The North Peninsula sockeye catch of 1.2 million fish was the lowest since 1978 and was far below the previous 10 year average of 1.7 million fish. The indexed total escapement was estimated at 600,000 and was on target in nearly all streams. Locations where sockeye escapement goals fell short were Sandy River and Urilia Bay. The low Sandy River escapement is, at least in part, the result of a terminal mixed stock fishery (with Bear River). The Urilia Bay escapement was not achieved because of illegal fishing after the fishery was closed.

The 1987 South Peninsula coho harvest was 224,700. Most of the catch was taken during July and August when pink and chum salmon were the target species. The September coho catch was 23,000. Escapement information was very incomplete.

The North Peninsula coho harvest during 1987 was 172,000 fish of which over 128,000 were taken from Nelson Lagoon. Port Heiden, Nelson Lagoon, and Swanson Lagoon had excellent escapements (this was due to early closures of the latter two). Ilnik had a mediocre escapement while Cinder River's was very poor. Remoteness, weather, and lack of airplanes at key times hampered management of the Cinder River fishery.

During the fall season, 17 Area T vessels in addition to the local Port Heiden fleet fished the overlap area off Port Heiden down to Three Hills. Had more buyers been available, the number of Area T boats would undoubtedly been much higher. The first year in which significant numbers of Area T vessels fished the Ilnik Section outside of Ilnik Lagoon was 1986 (18 vessels). main attraction appears to be Bear River sockeye which managed based on the number of sockeye passing through the weir. However, various coho stocks placed under are being more pressure and aerial survey conditions are often poor. Fall sockeye and coho are intermingled.

A total of 10 Area T drift gillnetters and 5 setnetters fished the Cinder River vicinity exclusively.

The 1987 North Peninsula king salmon catch totaled 14,700 fish, down from the previous 10 year average of 19,000. The king salmon indexed total escapement was estimated at 10,700, well below the previous 10 year average of 14,500.

The 1987 South Peninsula king salmon catch was 9,200 fish, slightly above the previous ten year average of 7,800.

Escapement information (independent of catch data) including weir/tower counts, stream escapement surveys, and historical indexed total escapement information by section or specified location are included in Tables SG 1-11.

Limited percent age composition information is listed in Tables SH 1-5. More detailed information will be published in the 1987 Alaska Peninsula-Aleutian Islands Area Technical Data Report.

1987 MANAGEMENT SUMMARY

(Excluding Interception Fisheries)

As mentioned earlier, the 1987 South Peninsula catch projections wee for mediocre pink salmon and strong chum returns. Because South Peninsula chums tend to arrive earlier than pinks, the strategy was to have a heavy harvest on chums during early and mid July, before the peak of the pink returns. The chum returns were in the anticipated magnitude while pink salmon returns were somewhat weaker.

The July-August South Peninsula pink and chum fishery began with a 4:00 A.M. July 6, until 10:00 P.M. July 8 fishing period. This fishing period included the entire South Peninsula east of Cape Lazaref, excluding that portion (Southeastern District Mainland), managed on the basis of Chignik stocks.

The same area (opened July 6-8) was open to commercial salmon fishing again, during 4:00 A.M. July 13 until 10:00 P.M. July 17.

During 4:00 A.M. July 20 until 10:00- P.M. July 22 commercial salmon fishing was again allowed in that portion of the South Peninsula east of Cape Lazaref excluding that portion managed on the basis of Chignik stocks. A 24 hour extension was allowed until 10:00 P.M. July 23 for the Shumagin Islands and from McGinty Point to Cape Lazaref.

Chum catches had remained strong during the above fishing periods. Pink salmon returns failed to show anticipated strength.

The next fishing period was for less than two days (4:00 A.M. July 27 until 10:00 P.M. July 28). Pink salmon returns still remained weak. This period included the entire South Peninsula east of Cape Lazaref.

Another fishing period was allowed for the entire South Peninsula east of Cape Lazaref from noon August 3 until 10:00 P.M. August 5. Stepovak Flats was left open during this period (resulting in a chum harvest of 88,600), in anticipation of no fishing time after August 5 due to dismal pink returns. The published regulations close Stepovak Flats after July 28.

It was decided to leave the South Peninsula closed after August 5 until pink salmon escapements justified more fishing time.

Escapements improved to where a 12:00 Noon August 12 until 8:00 P.M. August 14 fishing period could be allowed in the Mino Creek-Little Coal Bay, Pavlof, and Deer Island Sections. This period resulted in mediocre pink salmon harvests (18,000 from Deer Island and 89,000 from the balance). However, a decent chum harvest of 68,000 was taken primarily in the Pavlof Bay Section. It was decided not to open the Shumagins during this period due to poor escapements and the lateness of the season despite reports of fish in deep waters. The Shumagin purse seine fishery is a good indicator of fish moving into the area and not including the Shumagins in the August 12-14 fishing period proved to be a mistake.

August 16, escapements in the Shumagins and the nearby mainland were strong enough to justify another harvest. However, the Department was reluctant to allowing a fishing period at this time without substantial help by the Department of Public Safety. The Department of Public Safety obliged and a Noon August 19 until 8:00 P.M. August 20 fishing period was allowed in the Shumagin Islands Section and the Mainland from Point Aliaksin to Blunt Point. The closed waters were expanded to include all of Little Harbor, Delarof Harbor, and Squaw Harbor west of Peter Pan Seafoods' dock. This fishing period was a success, resulting in harvest o f 314,000 pinks and 12,000 chums. Excellent escapements were achieved and there did not appear to be any illegal fishing.

The chum run into Stepovak Flats was so strong that another fishing was needed. This was accomplished with a 3 hour fishing period along the east side of the Flats, beginning at noon August 22, with a patrol vessel present. The fish moved west out of the open area with the tide, prior to the opening. The catch was a disappointing 24,000 pinks and 19,000 chums. As normally is the case, there were virtually no chum salmon in the creeks at this date.

A third spot opening occurred from 10:00 A.M. until 4:00 P.M. during August 25 in the Volcano Bay and Bechevin Bay Sections (Bechevin Bay is actually part of the North Peninsula). The purpose of this opening was to harvest surplus chums. The Department of Public Safety was again present and this opening was successful (26,000 chums taken at Volcano and 11,000 from Bechevin). Escapements were excellent.

The Nelson Lagoon Section accounted for 5,800 of the North Peninsula king salmon harvest and 4,000 of the indexed total escapement. This was below the previous 10 year average catch of 7,900 and 6,200 escapement. The Nelson Lagoon king fishery is difficult to manage due to the overlap with sockeye. A 24 hour reduction in fishing time prior to June 16 should help protect kings.

The king salmon run at Port Heiden is being fished more intensely each year. The basic problem is that the fish often do not move into the river rapidly enough. During 1987 this fishery was closed during June 17 - 28. The peak escapement was estimated at a mediocre 1,400. Beginning with the 1988 season, the fishing periods have been reduced 24 hours to 6:00 A.M. Monday until 6:00 P.M. Wednesday. However, it is likely that the fishery may need to be completely closed for awhile if the fleet doesn't migrate to Bristol Bay (nearly all Port Heiden fishermen have Area T permits) during late July. The 1987 Port Heiden king salmon harvest was 3,200 fish.

The fishing periods in the Urilia Bay Section was reduced from four to two days per week after the first week in June. This strategy did not prove successful as the sockeye did not move out of the fishing area before the next fishing period. The fish school up in a hole approximately 1/4 mile above the mouth of the Christensen Lagoon outlet channel. There were still colored up fish in this hole in late July. In this situation, the fleet is as effective during one day of fishing per week as with four. The fishery was completely closed after June 30. Unfortunately two boats continued to fish Urilia after the closure, preventing achievement of the 30,000 to 50,000 escapement goal. The indexed total escapement in the Christensen Lagoon system was 24,200.

If Urilia Bay is to remain an important sockeye producer, there has to be people on the ground to control the fishery. The outlet channel needs to be closed below the above mentioned hole. Catching all of the early fish and taking all of the late fish for escapement is not healthy. If funding materializes, as presently appears to be the case, Department personnel will be on the grounds during July 1988 and a weir or counting tower will be in operation during 1989.

The Nelson Lagoon fishery was closed after July 6 due to an escapement of 19,500 sockeye through July 3, well below the July 5 interim goal of 65,000. The fishery was closed during July 3, 4, and 5 by published weekend regulatory closures and a one day fishery on July 6 (Monday) was desirable as a test. The catch was a very good (season high) 14,000.

Through 9:00 A.M. July 8, the Nelson Lagoon sockeye escapement past the counting tower was 63,000 as compared to a July 10 interim goal of 90,000. An 18 hour fishing period was granted on July 9 (Thursday) to test run strength. The July 9 catch was a very respectable 8,400 but indicated that the run was past the peak.

The Nelson Lagoon escapement past the counting tower through July 11 was 90,600 (July 15 interim goal 110,000), with daily escapements averaging 4,700. An 18 hour fishing period was announced for July 13.

During July 13, the Nelson (Sapsuk) River tower sockeye escapement reached 105,000 (above the lower end of the season goal) and the fishery returned to it's standard 6:00 A.M. Monday to 12:00 P.M. Midnight Thursday fishing periods. Continuous fishing through July 23 was granted after the 125,000 midpoint season goal was passed with daily escapements averaging 5,000.

Continuous fishing at Nelson Lagoon was again extended through July 30 after the escapement count reached 136,000 through July 22 with daily averages of 1,200.

The final Nelson Lagoon escapement past the counting tower was 141,400 through July 26 when counting was discontinued.

The Bear River Section west of Sandy River was closed effective July 3 (weekly fishing period ended 6:00 P.M. July 2) until July 13. As of July 3, the Bear River escapement was 58,400 as compared to a goal of 110,000 to 125,000 through July 15 and daily counts were less than 1,000. The strategy was to protect fish that gathered in the terminal area during the weekend closures until adequate escapement counts were achieved, but still allow the fleet to work on fish coming into the area. The Bear River escapement through July 13 was 128,600.

The Bear River sockeye escapement reached 140,000 through July 15 and fishing was allowed through the weekend of July 17-19. The extended area ran from Harbor Point to Three Hills. The Ilnik Section was not extended because the Ilnik sockeye escapement was estimated at 17,400 as compared to a goal of 25,000 to 50,000.

The Bear River Section west of Sandy River was again closed after the weekly fishing period ending July 25 due to only 8,500 fish being counted through the weir after July 15. The July 16-August 5 Bear River sockeye escapement goal is 40,000 to 50,000.

The entire area from Harbor Point to 158°24′ W. long. excluding Ilnik Lagoon and the Port Heiden Section was left closed during July 31 through August 9 due to a continued weak July 16 - August 5 Bear River sockeye escapement. The final July 16 - August 5 escapement was 31,600.

The post August 5 Bear River escapement goal is 50,000 to 75,000. The post August 5 Bear River escapement was only 10,300 through August 9. As a result the Bear River Section west of Sandy River remained closed. Through August 14, the escapement had only increased to 20,000. This prompted a complete closure of the fishery between Harbor Point and 158°20′ W.long. (excluding Ilnik Lagoon and the Port Heiden Section) after August 16.

The Bear River fishery was reopened at Noon August 19 when it was apparent that the lower end of the post August 5 goal would be reached. As of Bear River weir removal on September 2 the post August 5 sockeye escapement was 71,100.

The Izembek-Moffet Bay Section was open as specified in the regulations, 6:00 A.M. Monday until 6:00 P.M. Thursday until a 24 hour extension was granted during the week of July 26 - August 1. The extension was justified due to strong catch per boat (1,200 chums).

A 48 hour extension was granted during the week of August 2 - 8 due to strong chum runs and poor fishing weather.

The season was extended through August 13 due to continued strong catches and good escapements in the early systems. The indexed

total Izembek-Moffet Bay Section escapement was a very good 286,000.

In the Northern District coho fishery, the following adjustments were made:

- (1) Cinder River Section closed after September 3 when only 300 and 2,400 coho were observed in Mud Creek and Cinder River respectively. This fishery should have been closed earlier, but aircraft problems and weather prevented earlier surveys. The weekly fishing period has been reduced 24 hours to 6:00 A.M. Monday 6:00 P.M. Wednesday beginning in 1988 which should provide added protection.
- (2) Port Heiden Section fishery opened continuously after September 6, due to escapement survey estimate of 26,000 which is at desired season level.
- (3) The Nelson Lagoon Section was closed after September 7 due to an escapement estimate of only 7,000 coho in the Sapsuk River on September 4, with daily catches declining during September 1 - 3.

The September 7 catch of 10,600 was very good for that date and the Sapsuk River escapement was estimated at 9,200. It was calculated that the season Sapsuk River escapement goal of 20,000 to 30,000 could be achieved while allowing one more 18 hour fishing period on September 9. The September 9 catch was 5,200 coho with the final escapement count (September 24) of 27,500.

The Ilnik Section is receiving more fishing pressure. The set gillnet fishery in the lagoon is expanding with effort mainly targeted on Unangashak River stocks. The Unangashak is very murky and hard to see fish in. The number of driftnetters fishing outside the Seal Islands is increasing and may

drastically increase during the fall if large numbers of Area T fishermen move into the Ilnik Section. It is also anticipated that sport fish use will greatly increase. A reduction 24 hours per week to 6:00 A.M. Monday until 6:00 P.M. Wednesday should provide some added protection beginning in 1988.

During 1987, the Unangashak was too murky for escapement counts. The peak Ilnik River-Willie Creek escapement was a fair 8,000 coho, well below the 1985-86 average of 30,000.

The Ocean River coho run is apparently much later than other Northern District runs. Most runs are well past the peak by September 15. However, Ocean River's appeared to be just underway when surveyed September 24 (3,100 coho estimated).

During 1987, the Northwestern District and that portion of the South Peninsula excluding the Southeastern District, were open to commercial salmon fishing continuously during September 5 through September 11. These locations were then closed for the balance of the season to achieve escapements and insure that subsistence needs would be met. This strategy worked much better than having two or three short openings during September as the fish do not move rapidly enough into safe water. The long fishing period also gave fishermen an opportunity to prospect for new stocks after gathered fish were harvested in known production areas. Escapement (coho) data is incomplete although available information indicates the stocks are healthy.

Southeastern District fall fishing is largely done well away from terminal streams targeting on traveling fish. Set gillnets are the dominant gear as opposed to hand purse seining done farther west. Daily catch rates tend to be small and weather is a big factor during September. Therefore, the Southeastern District fishery has been allowed to continue much later than they are to the west. Seven consecutive days were allowed during September

5 - 11 after which weekly 6:00 A.M. Monday - 8:00 P.M. Friday periods were allowed. Gear level drastically dropped after September 11.

During 1987, fall (September-October) catches were as follows for the South Peninsula and Northwestern District:

	<u>Sockeye</u>	<u>Coho</u>	<u>Chum</u>
Southeastern District	22,588	14,996	13,850
South Central, Southwestern, and Unimak Districts	724	6,649	37,864
Northwestern District	5,286	19,521	10,821

1987 salmon runs tended to be somewhat later than normal, despite a mild spring. This was the case for all species.

SUBSISTENCE SALMON FISHERY

Subsistence salmon catches are estimated from permit return information. Information from returned permits is used to extrapolate catches for all permits issued. There are undoubtedly many fish kept from commercial catches and not reported.

Permits are not required to subsistence fish in the Akutan, Umnak, and Adak Districts. Consequently no catch estimates are made by the Commercial Fisheries Division for those districts.

1987 subsistence catch information is contained in Tables SI 1-4.

<u>OUTLOOK FOR 1988</u> (excluding South Peninsula interception fisheries).

The North Peninsula sockeye catch is projected to be 1,250,000, similar to that of 1987. The 1978-87 10 year average was 1,765,000.

The South Peninsula pink salmon catch is projected to be 6,000,000, a big increase over the 1,200,000 1987 catch. The 1978-87 average is slightly over 5,000,000. These figures do not include incidental June catches.

The South Peninsula chum catch is projected to be 400,000 during July through September, less than half of the 1987 catch of 933,000. The 1978-87 average catch was 954,000,

The North Peninsula chum salmon catch is projected to be 1,000,000 fish, a new record. The 1987 catch was 369,000 and the 1978-87 average is 442,000.

North Peninsula king and coho runs will likely be similar to 1987 levels.

METHODS OF CALCULATING INDEXED TOTAL ESCAPEMENTS

Unusual circumstances may cause occasional deviation, but basically the methods of calculating estimated indexed total escapements without the use of a weir or tower are as follows:

King Sockeye Coho: These species tend to have a much longer stream life than pink and chum salmon. Therefore, the estimated total escapement is usually the peak escapement. Carcasses are included. However, it is recognized that there are problems in large systems such as Ilnik and Caribou-David's Rivers. The basic problem on large systems is the length of time, expense, and fuel needed to do a thorough survey yet meet more pressing obligations.

The Caribou and David's River complex (including Coastal and other nearby lakes) is so massive a system for the size of its runs that complete surveys will probably never be done. The timing of such surveys would have to coincide with the peak of the South Peninsula pink and chum fisheries.

In the case of Ilnik, numerous management surveys are done while the fishery is being managed for the Ilnik stocks. However, the peak surveys occur after the fishery has tapered off and most effort must be devoted to South Peninsula runs. However, Ilnik is a very important run and more effort is being made to accurately monitor it. The Ilnik sockeye run is of longer duration than the majority of unweired (or towered) North Peninsula sockeye streams. Ilnik sockeye also seem to have a shorter stream life than those in most other shallow water systems. Consequently, Ilnik requires at least two complete surveys or at least one complete survey with fish in the lower area during subsequent surveys being added to a peak count for the system. Again this system justifies more effort and is probably a larger producer than a number of weired systems in other portions of the state. Many of the Ilnik figures listed in this publication are minimal.

<u>Pink and Chum Salmon</u>: A 21-day stream life is used to calculate total pink and chum escapements. Fish in saltwater during the final survey are added.

EXAMPLE

Survey Date	<u>Pinks</u>	Chums	Fish at Mouth
July 10 17	5,000 25,000	0 0	5,000P 10,000P
August 1 15	100,000 150,000	0 0	10,000P 12,000P 1,000CH
September 1	150,000	5,000	2,000CH
Estimated Total	255,000	7,000	

The estimate of 21 days stream life was used because significant numbers of carcasses seem to appear about three weeks after adult pinks and chums first appear in Alaska Peninsula streams. It is recognized that stream life can vary, however this method is easily duplicated and is comparable from year to year. Variation in stream life is likely a much smaller factor than variation between observers.

With the exception of several small streams, there are no problems of streams being obscured by brush or trees in the Alaska Peninsula and Aleutian Islands Areas. With several exceptions, visibility of spawning grounds is outstanding during periods of normal water flow and clear weather.

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands)

Year		Kinas	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
1906	South Peninsula North Peninsula Aleutians	0 1.5 0	0 135.0 0	0 0 <u>0</u>	0 0 <u>0</u>	0 0 <u>0</u>	0 136.5 0
	Total	1.5	135.0	0	0	0	136.5
1907	South Peninsula North Peninsula Aleutians	0 1.7 <u>0</u>	0 66.5 <u>0</u>	0 3.2 <u>0</u>	0 1.5 <u>0</u>	0 0 <u>0</u>	0 72.9 <u>0</u>
	Total	1.7	66.5	3.2	1.5	0	72.9
1908	South Peninsula North Peninsula Aleutians	0 1.5 <u>0</u>	69.4 166.9 <u>0</u>	0 0 <u>0</u>	0 0 <u>0</u>	0 0 <u>0</u>	69.4 168.4 0
	Total	1.5	236.3	0	0	0	237.8
1909	South Peninsula North Peninsula Aleutians	0 1.5 <u>0</u>	108.4 143.0 0	7.2 0 <u>0</u>	0 0 <u>0</u>	0 1.0 <u>0</u>	115.6 145.5 <u>0</u>
	Total	1.5	251.4	7.2	0	1.0	261.1
1910	South Peninsula North Peninsula Aleutians	0 0 <u>0</u>	46.3 0 <u>0</u>	5.5 0 0	0 0 <u>0</u>	0 0 <u>0</u>	51.8 0 0
	Total	0	46.3	5.5	0	0	51.8
1911	South Peninsula North Peninsula Aleutians	0 0 <u>0</u>	240.8 129.6 <u>9.3</u>	12.4 0 0	25.2 0 <u>0</u>	83.0 0 0	361.4 129.6 9.3
	Total	0	379.7	12.4	25.2	83.0	500.3
1912	South Peninsula North Peninsula Aleutians	0 0.9 <u>0</u>	334.4 252.7 0	27.0 11.0 0	40.4 0 0	195.0 2.4 0	596.8 267.0 0
	Total	0.9	587.1	38.0	40.4	197.4	863.8
1913	South Peninsula North Peninsula Aleutians	1.8 0.6 <u>0</u>	299.7 888.8 0	0 18.7 0	0 0 <u>0</u>	7.0 2.0 0	308.5 910.1 0
	Total	2.4	1188.5	18.7	. 0	9.0	1218.6

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

<u>Year</u>		<u>Kinas</u>	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
1914	South Peninsula North Peninsula Aleutians	0.6 8.1 <u>0</u>	628.9 1325.1 0	9.9 0 0	311.0 0 0	221.1 0 0	1171.5 1333.2 0
	Total	8.7	1954.0	9.9	311.0	221.1	2504.7
1915	South Peninsula North Peninsula Aleutians	4.8 14.0 0	367.9 1974.3 0	16.2 0 0	120.1 0 0	333.1 54.8 0	842.1 2043.1 0
	Total	18.8	2342.2	16.2	120.1	387.9	2885.2
1916	South Peninsula North Peninsula Aleutians	6.8 44.2 0	730.9 1974.7 <u>76.5</u>	34.1 0 1.2	576.1 2.6 180.3	508.9 191.4 	1856.8 2212.9 258.1
	Total	51.0	2782.1	35.3	759.0	700.4	4327.8
1917	South Peninsula North Peninsula Aleutians	6.4 20.0 0	1486.1 679.6 70.4	4.6 6.8 3.8	72.1 0.6 0.6	415.5 90.3 23.1	1984.7 797.3 97.9
	Total	26.4	2236.1	15.2	73.3	528.9	2879.9
1918	South Peninsula North Peninsula Aleutians	8.7 9.7 <u>0</u>	1014.1 1208.5 55.2	16.3 0 4.4	2150.0 1.2 75.6	1501.0 252.3 135.2	4690.9 1471.7 270.4
	Total	18.4	2277.8	20.7	2227.6	1888.5	6433.0
1919	South Peninsula North Peninsula Aleutians	9.6 19.6 	619.1 389.2 3.9	56.1 0 <u>0.8</u>	80.2 12.0 <u>4.0</u>	921.4 143.5 0	1686.4 564.3 8.7
	Total	29.2	1012.2	56.9	96.2	1064.9	2259.4
1920	South Peninsula North Peninsula Aleutians	7.8 19.0 0	1142.3 1371.9 10.1	47.7 0 2.8	2109.8 0 0	934.0 37.0 0	4241.6 1427.9 12.9
	Total .	26.8	2524.3	50.5	2109.8	971.0	5682.4
1921	South Peninsula North Peninsula Aleutians	0.7 12.5 0	830.7 1746.5 0	1.5 0 0	47.3 0 0	84.6 32.8 <u>0</u>	964.8 1791.8 <u>0</u>
	Total	13.2	2577.2	1.5	47.3	117.4	2756.6

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

<u>Year</u>		Kings	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
1922	South Peninsula North Peninsula Aleutians	6.9 10.4 0	3376.8 667.9 14.0	2.2 0 <u>0</u>	756.7 0 0	349.3 42.9 0	4491.9 721.2 14.0
	Total	17.3	4058.7	2.2	756.7	392.2	5227.1
1923	South Peninsula North Peninsula Aleutians	4.1 9.1 <u>0</u>	1827.2 731.7 0	75.3 0.1 0	143.6 0 0	538.9 25.8 0	2589.1 766.7 0
	Total	13.2	2558.9	75.4	143.6	564.7	3355.8
1924	South Peninsula North Peninsula Aleutians	3.9 10.5 0	1352.0 701.7 24.9	127.3 0 0	3931.3 0 673.8	1330.7 48.4 0.1	6745.2 760.6 698.8
	Total	14.4	2078.6	127.3	4605.1	1379.2	8204.6
1925	South Peninsula North Peninsula Aleutians	10.7 10.6 0	820.5 400.2 18.6	127.1 0 0	382.1 0 3.8	1116.8 53.9 9.1	2457.2 464.7 31.5
	Total	21.3	1239.3	127.1	385.9	1179.8	2953.4
1926	South Peninsula North Peninsula Aleutians	9.5 23.9 0	3071.5 672.9 1.3	193.8 0 0	3719.7 0 521.7	1179.8 71.5 <u>7.8</u>	8174.3 768.3 530.8
	Tota1	33.4	3745.7	193.8	4241.4	1259.1	9473.4
1927	South Peninsula North Peninsula Aleutians	9.6 16.5 0	714.7 230.6 17.3	125.3 0.1 0	1455.5 0 334.6	1299.7 87.0 0	3604.8 334.2 351.9
	Total	26.1	962.6	125.4	1790.1	1386.7	4290.9
1928	S.Pen & Aleutians North Peninsula	7.7 <u>4.6</u>	971.5 855.6	96.6 0	900.9	2416.3 83.5	4393.0 943.7
	Total	12.3	1827.1	96.6	900.9	2499.8	5336.7
1929	S.Pen & Aleutians North Peninsula	10.5 4.1	935.8 878.0	84.5 <u>0</u>	1793.5 0	2429.0 145.2	5253.3 1027.3
	Total	14.6	1813.8	84.5	1793.5	2574.2	6280.6

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

	<u>Year</u>		Kings	Sockeyes	Cohos	Pinks	Chums	<u>Total</u>
	1930	S.Pen & Aleutians North Peninsula		935.2 167.7	161.1	6094.8	1278.1 <u>93.7</u>	8480.1 265.2
		Total	14.7	1102.9	161.1	6094.8	1371.8	8745.3
	1931	S.Pen & Aleutians North Peninsula		1863.2 761.0	128.7 0	997.9 0	1216.0 54.9	4211.8 817.2
		Total	12.3	2624.2	128.7	997.9	1265.9	5029.0
j	1932	S.Pen & Aleutians North Peninsula		2977.3 977.1	112.3	3604.8	817.3 56.3	7529.1 1036.6
		Total	20.6	3954.4	112.3	3604.8	873.6	8565.7
	1933	S.Pen & Aleutians North Peninsula		1996.7 350.1	190.0	3109.2	1173.9 16.0	6482.4 367.2
		Total	13.7	2346.8	190.0	3109.2	1189.9	6849.6
	1934	S.Pen & Aleutians North Peninsula		1372.4 1091.3	247.1	6538.5 0.4	1940.3 13.0	10115.9 1106.3
		Total	19.2	2463.7	247.1	6538.9	1953.3	11222.2
	1935	S.Pen & Aleutians North Peninsula		978.4 479.2	117.2 0	5386.2 0.1	2003.1	8498.8 514.1
		Total	14.9	1457.6	117.2	5386.3	2036.9	9012.9
	1936	S.Pen & Aleutians North Peninsula		3662.6 610.7	284.6	9471.0	2310.9	15743.5 633.5
		Total	15.4	4273.3	284.6	9473.8	2329.9	16377.0
	1937	S.Pen & Aleutians North Peninsula	9.3 1.6	1558.0 860.9	73.9	9302.0	1506.7 65.6	12449.9 928.2
		Total	10.9	2418.9	73.9	9302.1	1572.3	13378.1
	1938	S.Pen & Aleutians North Peninsula	6.4 5.9	772.1 1009.6	220.7	7169.1	1476.6 34.7	9644.9 1050.2
		Total	12.3	1781.7	220.7	7169.1	1511.3	10695.1
		•						

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

<u>Year</u>		<u>Kings</u>	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
1939	S.Pen & Aleutians North Peninsula	16.5 3.9	1881.7 746.2	98.9 <u>0</u>	6005.3	1440.6 82.2	9443.0 882.3
	Total	20.4	2627.9	98.9	6005.3	1522.8	10275.3
1940	S.Pen & Aleutians North Peninsula	9.1 <u>0.7</u>	1040.3 678.9	184.2	7182.8	2326.3 65.6	10742.7 745.2
	Total	9.8	1719.2	184.2	7182.8	2391.9	11487.9
1941	S.Pen & Aleutians North Peninsula	13.0 0.7	1072.0 491.7	183.0 0	5347.0 3.2	1542.0 30.2	8157.0 525.8
	Total	13.7	1563.7	183.0	5350.2	1572.2	8682.8
1942	S.Pen & Aleutians North Peninsula	4.8	810.1	123.0	6762.6 0	1321.1	9021.6
	Total	4.8	810.1	123.0	6762.6	1321.1	9021.6
1943	S.Pen & Aleutians North Peninsula	21.7 <u>0.2</u>	2397.7 567.4	90.6	4360.2	924.5 50.4	7794.7 619.3
	Total	21.9	2965.1	90.6	4361.5	974.9	8414.0
1944	S.Pen & Aleutians North Peninsula Total		538.6 414.7 953.3	238.7 0 238.7	2653.8 2.6 2656.4	985.6 157.9 1143.5	4426.6 575.3 5001.9
1945	S.Pen & Aleutians North Peninsula Total		813.4 394.4 1207.8	116.1 0 $116.\overline{1}$	3639.6 2.5 3642.1	948.9 335.1 1284.0	5539.4 732.1 6271.5
1946	S.Pen & Aleutians North Peninsula Total		752.3 697.7 1450.0	151.4 0.3 151.7	1964.0 0 1964.0	1219.9 36.0 1255.9	4093.7 736.5 4830.2
1947	S.Pen & Aleutians North Peninsula	3.4 0.1	1137.1 357.7	55.8 0.1	2319.6 0.1	1219.2 75.0	4735.1 433.0
	Total	3.5	1491.8	55.9	2319.7	1294.2	5168.1
1948	S.Pen & Aleutians North Peninsula	1.2 2.2	285.9 477.6	39.2 17.2	1683.7	1139.6 161.7	3149.6 658.7
	Total	3.4	763.5	56.4	1683.7	1301.3	3808.3

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

-	Year		<u>Kings</u>	<u>Sockeyes</u>	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
	1949	S.Pen & Aleutians North Peninsula	3.8 <u>0.7</u>	637.5 137.1	19.5 25.7	1544.0	560.9 40.7	2765.7 204.2
		Total	4.5	774.6	45.2	1544.0	601.6	2969.9
	1950	S.Pen & Aleutians North Peninsula	4.0 1.1	1745.3 127.8	70.7 37.8	1613.7 0	562.5 217.6	3996.2 284.3
		Total	5.1	1873.1	108.5	1613.7	780.1	4380.5
,	1951	South Peninsula North Peninsula Aleutians	1.5 1.2 0	264.2 358.9 11.7	55.7 32.9 <u>0.4</u>	2844.8 20.4 0.5	683.1 203.0 94.5	3849.3 616.4 107.1
		Total .	2.7	634.8	89.0	2865.7	980.6	4572.8
	1952	South Peninsula North Peninsula Aleutians	9.2 0.7 <u>0.2</u>	894.5 354.8 42.8	39.2 54.2 0	908.5 1.4 31.8	1040.8 246.9 25.7	2892.2 658.0 100.5
		Total	10.1	1292.1	93.4	941.7	1313.4	3650.7
	1953	South Peninsula North Peninsula Aleutians	7.2 0.8 <u>0</u>	1039.2 537.3 4.2	47.9 26.2 0.5	2743.9 18.3 69.2	1464.6 224.4 0.8	5302.8 807.0 74.7
		Total	8.0	1580.7	74.6	2831.4	1689.8	6184.5
	1954	South Peninsula North Peninsula Aleutians	4.2 3.4 <u>0</u>	636.3 354.7 <u>6.3</u>	49.4 35.0 0.8	2033.3 18.5 566.5	1413.4 405.0 0.2	4136.6 816.6 573.8
		Total	7.6	997.3	85.2	2618.3	1818.6	5527.0
	1955	South Peninsula North Peninsula Aleutians	5.4 4.1 <u>0</u>	550.1 586.6 12.6		2529.2 0.9 31.1	688.2 129.6 0.4	3817.7 727.4 44.2
		Total	9.5	1149.3	51.1	2561.2	818.2	4589.3
	1956	South Peninsula North Peninsula Aleutians	4.8 4.2 <u>0</u>	641.4 1370.9 0.4	61.9 8.2 0	2740.7 28.5 33.9	1618.7 427.4 0	5067.5 1839.2 34.3
		Total	9.0	2012.7	70.1	2803.1	2046.1	6941.0

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

<u>Year</u>		Kinas	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
1957	South Peninsula North Peninsula Aleutians	5.8 1.0 2.3	341.9 327.9 27.3	49.9 18.3 <u>0.1</u>	913.1 3.3 0.5	1,281.4 274.9 13.9	2,592.1 625.4 44.1
	Total	9.1	697.1	68.3	916.9	1,570.2	3,261.6
1958	South Peninsula North Peninsula Aleutians	0.8 15.0 <u>0</u>	186.1 473.8 0.3	70.6 57.1 0	1,385.2 60.4 613.2	841.0 254.8 3.7	2,483.7 861.1 617.2
	Total	15.8	660.2	127.7	2,058.8	1,099.5	3,962.0
1959	South Peninsula North Peninsula Aleutians	0.9 28.7 <u>0</u>	217.5 634.9 6.1	8.5 59.1 <u>0</u>	915.6 9.6 12.0	711.7 404.7 0.1	1,854.2 1,137.0 18.2
	Total	29.6	858.5	67.6	937.2	1,116.5	3,009.4
1960	South Peninsula North Peninsula Aleutians	1.7 10.4 0	379.0 692.8 7.6	1.8 44.0 0	1,197.5 34.7 444.9	904.4 607.2 0.3	2,484.4 1,389.1 452.8
	Total	12.1	1,079.4	45.8	1,677.1	1,511.9	4,326.3
1961	South Peninsula North Peninsula Aleutians	0.9 6.1 <u>0</u>	456.8 387.7 2.7	10.4 24.6 0	1,727.8 3.0 94.0	748.6 153.3 	2,944.5 574.7 96.9
	Total	7.0	847.2	35.0	1,824.8	902.1	3,616.1
1962	South Peninsula North Peninsula Aleutians	3.3 5.4 <u>0</u>	420.0 249.7 5.5	12.5 35.2 0.1	1,965.5 31.2 2,001.7	824.8 34.9 <u>1.2</u>	3,226.1 356.4 2,008.5
	Total	8.7	675.2	47.8	3,998.4	860.9	5,591.0
1963	South Peninsula North Peninsula Aleutians	1.9 3.6 <u>0</u>	204.4 225.2 4.5	16.5 40.5 0	2,367.7 6.9 93.9	461.3 49.9 0.3	3,051.8 326.1 98.7
	Total	5.5	434.1	57.0	2,468.5	511.5	3,476.6
1964	South Peninsula North Peninsula Aleutians	2.0 3.6 0	370.8 250.8 0.2	13.6 36.6 0	2,740.4 6.8 194.1	751.0 139.0 2.3	3,877.8 436.8 196.6
	Total	5.6	621.7	50.2	2,941.3	892.3	4,511.2

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

<u>Year</u>		Kings	Sockeyes	Cohos	Pinks	Chums	<u>Total</u>
1965	South Peninsula North Peninsula Aleutians	2.1 6.1 <u>0</u>	915.7 199.5 0	34.2 34.5 <u>0</u>	2,884.1 2.1 0	556.4 69.7 0	4,392.5 311.9 0
	Total	8.2	1,115.2	68.7	2,886.2	626.1	4,704.4
1966	South Peninsula North Peninsula Aleutians	1.4 5.6 0	606.2 245.3 1.0	6.3 37.3 0	302.3 16.0 63.5	494.4 82.8 <u>0.7</u>	1,410.6 387.0 65.2
•	Total	7.0	852.5	43.6	381.8	577.9	1,862.8
1967	South Peninsula North Peninsula Aleutians	1.6 5.5 0	294.1 224.7 0.2	2.9 46.8 0	77.8 0.7 <u>7.9</u>	245.2 41.3 0	621.6 319.0 <u>8.1</u>
	Total	7.1	519.0	49.7	86.4	286.5	948.7
1968	South Peninsula North Peninsula Aleutians	1.4	699.8 237.1 	31.1 64.9 <u>0.1</u>	1,287.1 0.2 902.8	325.3 73.5 0.8	2,344.7 380.2 905.7
	Total	5.9	938.9	96.1	2,190.1	399.6	3,630.6
1969	South Peninsula North Peninsula Aleutians	1.9 4.8 0	912.8 321.3 1.9	10.9 49.1 0	1,219.4 0.1 242.2	389.2 28.1 1.5	2,534.2 403.4 245.6
	Total	6.7	1,236.0	60.0	1,461.7	418.8	3,183.2
1970	South Peninsula North Peninsula Aleutians	1.8 3.2 0	1,794.6 213.0 0.2	32.2 26.4 0.1	1,723.4 7.8 672.5	981.7 50.2 3.3	4,533.7 300.6 _676.1
	Total	5.0	2,007.8	58.7	2,403.7	1,035.2	5,510.4
1971	South Peninsula North Peninsula Aleutians	2.2 2.2 0	715.5 354.2 0.3	16.8 8.2 0	1,450.1 0.3 45.5	1,366.6 64.2 0.1	3,551.2 429.1 45.9
	Total	4.4	1,070.0	25.0	1,495.9	1,430.9	4,026.2
1972	South Peninsula North Peninsula Aleutians	1.3 1.8 <u>0</u>	557.8 179.5 0.1	8.0 9.6 0	78.0 0 2.8	727.5 84.7 <u>0</u>	1,372.6 275.6 2.9
	Total	3.1	737.4	17.6	80.8	812.2	1,651.1

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

<u>Year</u>		<u>Kings</u>	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
1973	South Peninsula North Peninsula Aleutians	0.4 4.4 <u>0</u>	330.2 171.8 0.1	6.6 26.9 0	58.0 0.3 7.0	293.0 155.7 0	688.2 359.1 <u>7.1</u>
	Total	4.8	502.1	33.5	65.3	448.7	1,054.4
1974	South Peninsula North Peninsula Aleutians	0.5 5.1 <u>0</u>	204.7 247.9 0	9.4 24.0 0	99.7 10.5 0	71.5 35.3 0	385.8 322.8 0
	Total	5.6	452.6	33.4	110.2	106.8	708.6
1975	South Peninsula North Peninsula Aleutians	0.1 2.1 0	268.4 233.5 0	0 28.2 0	61.7 0.3 0	132.9 8.7 0	463.1 272.8 0
	Total	2.2	501.9	28:2	62.0	141.6	735.9
1976	South Peninsula North Peninsula Aleutians	2.1 4.9 0	375.0 641.1 0	0.2 26.0 0	2,367.0 0.6 0	532.5 73.6 0	3,276.8 746.2 0
	Total	7.0	1,016.1	26.2	2,367.6	606.1	4,023.0
1977	South Peninsula North Peninsula Aleutians	0.5 5.5 <u>0</u>	311.7 471.1 0	2.1 34.1 <u>0</u>	1,448.6 0.9 0	243.2 129.1 0	2,006.1 640.7
	Total	6.0	782.8	36.2	1,449.5	372.3	2,646.8
1978	South Peninsula North Peninsula Aleutians	0.8 14.2 <u>0</u>	579.5 896.2 1.8	60.7 63.3 0	5,608.8 466.6 38.1	547.0 163.2 0	6,796.8 1,603.5 39.9
	Total	15.0	1,477.5	124.0	6,113.5	710.2	8,440.2
1979	South Peninsula North Peninsula Aleutians	2.1 17.1 0	1,149.7 1,979.5 12.2	356.5 112.8 0	6,570.5 5.0 539.4	483.0 65.7 0.2	8,561.8 2,180.1 551.8
	Total	19.2	3,141.4	469.3	7,114.9	548.9	11,293.7
1980	South Peninsula North Peninsula Aleutians	4.8 16.8 0	3,613.0 1,397.1 9.2	274.2 127.9 0	7,961.5 301.7 2,597.5	1,351.2 700.2 4.9	13,104.7 2,543.7 2,611.6
	Total	21.6	5,019.3	402.1	10,760.7	2,056.3	18,260.0

Table SA 1. ALASKA PENINSULA - ALEUTIANS ISLANDS SALMON CATCHES (Fish in Thousands) continued

<u>Year</u>		<u>Kings</u>	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
1981	South Peninsula North Peninsula Aleutians	10.2 18.3 0	2,255.2 1,844.9 5.4	162.2 155.4 0.2	5,035.9 11.2 302.8	1,770.3 706.8 6.6	9,233.8 2,736.6 315.0
	Total	28.5	4,105.5	317.8	5,349.9	2,483.7	12,285.4
1982	South Peninsula North Peninsula Aleutians	9.8 30.1 0	2,346.0 1,435.3 2.7	256.0 238.0 0	6,734.9 12.3 1,447.8	2,272.5 331.1 6.1	11,619.2 2,046.8 1,456.6
	Total	39.9	3,784.0	494.0	8,195.0	2,609.7	15,122.6
1983	South Peninsula North Peninsula Aleutians	26.9 29.5 0	2,556.6 2,093.4 4.4	127.7 75.1 0	2,827.6 3.4 2.0	1,707.1 348.7 11.4	7,245.9 2,550.1 17.8
	Total	56.4	4,654.4	202.8	2,833.0	2,067.2	9,813.8
1984	South Peninsula North Peninsula Aleutians	9.2 23.0 0	2,318.0 1,734.9 67.2	309.1 198.6 0	11,589.3 27.4 2,309.7	1,656.5 796.7 33.9	15,882.1 2,780.6 2,410.8
	Total	32.2	4,120.1	507.7	13,926.4	2,487.1	21,073.5
1985	South Peninsula North Peninsula Aleutians	7.9 23.5 0.0	2,214.6 2,600.5 2.8	172.5 167.8 0.0	4,433.7 3.1 0.1	1,393.1 671.1 14.2	8,221.8 3,466.0 17.1
	Total	31.4	4,817.9	340.3	4,436.9	2,078.4	11,704.9
1986	South Peninsula North Peninsula Aleutians	5.6 11.7 <u>0.0</u>	1,223.0 2,436.7 7.7	235.9 164.1 0.1	4,031.5 22.6 42.6	1,749.7 271.2 38.8	7,245.7 2,933.3 89.2
	Total	17.3	3,694.4	400.1	4,096.7	2,059.7	10,268.2
1987	South Peninsula North Peninsula Aleutians	9.2 14.2 0.0	1,449.8 1,209.4 0.1	224.7 171.8 0.0	1,208.6 3.5 0.0	1,376.3 368.7 0.0	4,268.6 1,767.6 0.1
	Total	23.4	2,659.3	396.5	1,212.1	1,745.0	6,036.3

Table SB 1.

1987 SOUTHEAST DISTRICT MAINLAND FISHERY. ESTIMATED INTERCEPTION OF CHIGNIK DESTINED SOCKEYE*

Time Period**		<u>Percent</u>	Subtotal***
June 13 - 23	136,106	(71)	136,106
July 13 - 22	10,686	(6)	146,792
July 27 - August 22	28,519	(15)	175,311
Sept. 5, - Oct. 9	15,619	(8)	190,930

^{*} Includes Beaver Bay Section which is part of the South Central District.

^{***}Figures represent 80% of total sockeye taken. The other 20% are not considered to be Chignik Bound.

Purse Seiners	7,394	(3.9%)
Set Gillnetters	183,536	(96.1%)
	190.930	-

Total Suzy Creek to Dent Point catch 63,234. Sockeye taken in this area are considered to be local Orzinski fish and are not included in the figures above.

^{**} Fishing is not allowed every day of period. Figures include sockeye taken in statistical area 281-33 when chums were target species during July.

Table SB 2. CHIGNIK SOCKEYE RUN CATCHES $\frac{1}{2}$ (Number of Fish in Thousands)

	Chignik	Area	Cape I	gvak	Balboa-Si	Total	
	Catch	/0	Catch	%	Catch	0/ /0	Catch
19642/	561	90.63	15	2.42	43	6.95	619
1965 ² /	635	90.46	11	1.57	56	7.98	702
1966 ² /	225	88.24	18	7.06	12	4.71	255
1967 <u>2</u> /	473	91.67	23	4.46	20	3.88	516
1968 ² /	878	80.92	136	12.53	71	6.54	1,085
1969 ² /	310	74.70	98	23.61	7	1.69	415
$1970^{2/}$	1,426	70.04	542	26.62	68	3.34	2,036
19712/	1,016	76.97	253	19.17	51	3.86	1,320
1972 <u>2</u> /	379	86.33	42	9.57	18	4.10	439

1964-72 catch and percentage figures are total for entire season. Catch figures and percentages after 1972 are only through July 25.

1973 <u>3</u> /	768	89.41	53	6.17	38	4.42	859
1974 ^{3/}	517	73.12	122	17.26	68	9.62	707
1975 <u>3</u> /	115	81.56	24	17.02	2	1.42	141
1976 <u>3</u> /	760	82.25	118	12.77	46	4.98	924
$1977\frac{3}{}$	1,543	90.39	129	7.56	35	2.05	1,707
19784/5/	1,452	85.36	227	13.35	22	1.29	1,701
19794/6/	799	91.11	15	1.71	63	7.18	877
$1980^{4/6/}$	662	91.31	1	0.14	62	8.55	725
19814/6/	1,605	79.97	284	14.15	118	5.88	2,007
1982 <u>4/6</u> /	1,251	83.90	172	11.54	68	4.56	1,491
1983 <u>4/6</u> /	1,451	73.06	318	16.01	217	10.93	1,986
1984 <u>4/6</u> /	2,476	74.47	464	13.95	385	11.58	3,325
1985 <u>4/7</u> /	692	79.72	125	14.40	51	5.88	868
$1986\frac{4}{7}$	1,456	82.63	188	10.67	118	6.70	1,762
1987 4 /7/	1,660	78.01	322	15.08	147	6.91	2,128

Footnotes are listed on following page.

CHIGNIK SOCKEYE RUN CATCH FOOTNOTES

Table SB 2.

- 1/The Cape Igvak and Balboa-Stepovak figures represent 80% of the total sockeye catches for those areas as it is estimated that roughly 80% of the sockeye caught in the Cape Igvak section and Balboa-Stepovak are destined for Chignik.
- 2/Prior to 1973, Cape Igvak and Balboa-Stepovak fisheries were regulated by set weekly fishing periods in the regulation book, usually 5 days per week. The situation was sometimes modified due to poor escapements at Chignik.
- $\frac{3}{\text{During }1973}$ through 1977 all three fisheries were managed on a day for day basis.
- 4/Beginning with the 1978 season, the current Cape Igvak Fishery Management Plan still in effect today was implemented. The Cape Igvak fishery was allocated 15 percent of the total Chiqnik destined sockeye catch.
- 5/During 1978, seining prior to July 11 was disallowed in Beaver, Balboa, and Stepovak Bays. The set gillnet fishery was allowed to fish 3 days per week through July 10 after which the fishery was managed on the basis of local stocks.
- 6/During 1979-84, 5 days per week were allowed at Balboa-Stepovak (including Beaver Bay) with a ceiling of 60,000 estimated Chignik destined sockeye, prior to July 11. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 ceiling was to be dropped.
- Meginning in 1985, Balboa-Stepovak was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, Balboa-Stepovak is managed on a local stock basis.
- $\frac{8}{100}$ Balboa-Stepovak includes Beaver Bay. This fishery is also referred to as the Southeastern District Mainland Fishery.

Table SB 3.

SOUTHEAST MAINLAND ORZINSKI (ORZENOI) SOCKEYE RUNS

Year	Orzinski Escapement*	Orzinski and American Bays Catch	Balance of Suzy Creek Dent Point Catch	Total Suzy Creek Dent Point Catch	Total Orzinski Run	Total Southeas Mainlar Catch
1979	20,000	11,800	11,600	23,400	43,400	128,200
1980	12,000	9,600	10,600	20,200	32,200	131,200
1981	18,000	19,400	32,600	52,000	70,000	262,200
1982	9,000	6,100	3,400	9,500	18,500	118,000
1983	21,300	10,800	11,600	22,400	43,700	396,500
1984	18,600	18,600	52,300	70,900	89,500	633,300
1985	14,000	5,100	16,300	21,400	35,400	137,900
1986	10,300	12,500	49,200	61,700	72,000	245,500
1987	11,400	14,500	48,700	63,200	74,600	301,900

^{*}Escapements are indexed total escapements which means that they are likely lower than actual total.

Table SB 4.

FERCENT OF SOCKEYE CAUGHT BY GEAR TYPE

ENTIRE SOUTHEASTERN MAINLAND FISHERY*

	Purse	Se+	Total
Year	<u>Seine</u>	Gill Net	Sockeye Catch
1976	9	91	62,000
1977	28	72	53,000
1978	13	87	35,000
1979	28	72	128,000
1980	12	88	131,000
1981	13	87	261,000
1982	. 7	93	118,000
1983	28	. 72	396,000
1984	. 7	93	626,000
1985	14	86	138,000
1986	ĝ	91	246,000
1987	3	97	302,000

^{*}Includes the Beaver Bay Section of the South Central District and the entire Balboa Bay, West Stepovak, and East Stepovak Sections of the Southeastern District.

Table SC 1.

1987
SHUMAGIN ISLANDS AND SOUTH UNIMAK
JUNE FISHERY SOCKEYE AND CHUM CATCHES
ALL GEAR

	SHUMA	GINS	SOUTH	UNIMAK
Date	Sockeye	Chums	Sockeye	Chums
June 1 2				
June 1 2 4 5 6 7 8		•		
, 8 9	114	. 4	4,383	4,889
10 11 12 13	31,620	8,938	10,017 17,786	10,880 22,480
14 15 16	23,567	6,803	44,185 47,812	24,095 30,213
17 18 19			85,411 66,708	63,805 54,898
20 21 22 23	55,100	13,148	56,463 97.780 76,509	23,116 48,047 42,731
24 25 26 27 28 29 30	30,166	8,171	45,022 100,321	24,173 56,628
Total	140,567	37,064	652,397	405,955

Table SC 2.

SHUMAGIN ISLAND AND SOUTH UNIMAK
JUNE FISHERIES*
(Fish in Thousands)

		REDS			CHUMS					
		South			South					
Year	Shumagins	Unimak	Total	Shumagins	Unimak	<u>Total</u>				
1960	19	137	156	11	84	95				
1961	55	199	254	36	157	193				
1962	54	272	326	61	209	270				
1963	33	116	149	36	81	117				
1964	85	159	244	67	161	228				
1965	207	568	775	45	121	166				
1966	54	528	582	17	215	232				
1967	69	186	255	51	73	124				
1968	233	342	575	51	115	166				
1969	76	781	857	13	254	267				
1970	153	1,530	1,683	49	403	452				
1971	45	565	610	115	554	669				
1972	76	443	519	108	468	5 7 6				
1973	23	239	263	. 23	189	212				
1974	NF	NF	NF	NF	NF	NF				
1975	49	190	239	36	65	101				
1976	72	235	307	74	327	401				
1977	46	193	239	22	93	115				
1978	68	419	487	18	105	123				
1979	179	683	862	41	64	105				
1980	572	2,731	3,303	71	457	528				
1981	351	1,474	1,825	54	521	575				
1982	451	1,670	2,121	160	934	1,094				
1983	416	1,545	1,961	169	615	784				
1984	257	1,131	1,388	109	228	337				
1985	367	1,495	1,862	134	345	479				
1986	156	314	470	99	252	351				
1987	141	652	793	37	406	443				

^{*}The South Unimak figures include some early July catches.

Table SC 3.

SCUTH UNIMAK JUNE FISHERY DAILY SOCKEYE CATCHES (Figures in Thousands of Fish)

<u>Date</u>	, <u>1962</u>	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	1969	<u>1970</u>	<u>1971</u>	1972	<u>1973</u>	<u>1974</u>
June 1									0.1				•
2 3 4			0.1						0.1				
ک 1		0.2	0.2	0.2					0.2				
	0.6	0.2	0.1	0.3					1.0		0.2		
5 6	0.4	0.2	0.1		0.1			1.1	0.8 1.6		0.2		
5 6 7	0.2	0.8		7.2	0.1			3.2	9.4	0.3	0.1		
8	0.2	0.0		9.6			0.2	2.1	12.9	0.3	0.2		
8 9 10	-		5.0	14.3	0.3		0.7	2.3	15.0	0.7	3.9		
10	*	0.6	3.8	27.8	8.1	1.3	4.6	9.5	22.6	2.4	0.7		
11	3.5	7.5	0.6	30.5		0.9	8.2	18.0	24.5	2.5		5.0	
12	3.5	9.0	2.9			0.9	4.5	25.2	6.2	0.9	11.4	8.3	
13	6.5	9.5			26.6	6.3	7.8	50.7	13.0		15.3	7.7	
14	9.4	5.4	10 5	17.8	5.5	0.3	18.1	33.6	21.8	2.7	9.4	15.8	
15 16	12.3		10.5	35.1	9.7	3.8	21.8	19.1	54.4	23.2	1.3		
16 17		1.0	14.3 23.5	46.4 45.9	9.1 69.8	27.9 29.1	28.7 30.5	28.6	63.9	16.6	8.2		
18	26.9	5.6	10.8	50.4	09.0	16.5	31.3	61.2 65.7	38.4 8.1	19.0 24.0	2.0		
19	29.9	14.1	12.8	30.4		1.8	36.2	106.6	231.6	18.1	66.8	27.0	
20	45.9	16.4	12.0		104.8	7.8	35.3	56.2	245.6	10.1	79.8	27.0	
21	26.1	4.1		58.5	65.5	29.4	24.6	55.9	271.2	37.6	39.2		
22	8.9		20.1	51.8	33.5	7.8	12.3		189.5	53.6	41.8	42.5	
23			17.5	65.1	19.3	5.5	10.5	12.9	38.6	21.5	29.3	56.0	
24		8.7	6.2	60.8	40.5	13.4	9.0	30.5	16.5	39.7	22.8	50.3	
25 26	28.9	9.3	16.1	19.6		11.6	12.2	34.9	46.5	28.7			
26 27	31.6 13.9	2.7 4.8	4.5		EO 7	6.0	8.0	46.0	78.0	11.3	27.9		
28	13.9	3.2		9.0	58.7 31.3	1.4 0.6	5.6 5.3	43.4 40.0	47.2	20.2	15.0		
29	5.3	5.2	0.3	9.0	27.6	1.9	0.8	9.6	43.6 7.8	28.2 39.4	16.6 18.3	10.0	
30			0.8	7.0	12.1	1.4	1.6	1.8	9.7	47.9	16.0	10.0	

Table SC 3.

SOUTH UNIMAK JUNE FISHERY DAILY SOCKEYE CATCHES (Figures in Thousands of Fish)

Date	1975	<u>1976</u>	<u>1977</u>	<u>1978</u>	1979	1980	<u>1981</u>	1982	1983	1984	1985	1986	1987
June 1						0.3	0.1		0.5				
2							0.3	0.9	3.7				
3		0.1					0.3	0.2	7.1		2.4		
4				0 0	0.5		0.6	1.6	9.7	49.2	11 0		
5				0.3	0.5		0.0	1.3	39.6		11.8		
5 6 7		1.0		$0.1 \\ 0.4$	1.6 0.9		0.6	3.6 2.4	80.8		39.2		
8		1.4	0.3	0.4	1.5	4.1	1.9	3.1			39.2		Λл
9		1.4	0.3	0.4	2.5	5.0		1.6			79.4		4.4
10	1.4	1.3	2.3	0.3	1.7	3.2	6.6	7.2			13.4		10.0
11	'	5.1	2.0	0.0	3.7	0.2	47.6	12.7				8.3	17.8
12	8.9			5.2	1.6		73.6		200.7	486.2	200.4	0.0	17.0
13			2.7	5.4	18.3		144.1	6.0	290.5	123.2			
14		4.8		16.5	24.2		119.7	3.3	301.1		389.0	55.1	44.2
15		10.8	4.0	21.3	14.3	53.7		119.0					47.8
16	15.8		24.3	6.0	29.0			143.4				30.6	
17		15.6	26.6	4.4	33.1	267.2		156.7					85.4
18	38.5	26.9	29.8	37.0		313.4	000 4	105.5	400.0	465 0	101 6	91.7	66.7
19	10 1		CO 0	46.2					420.3	465.8	181.6		F.C. F
20 21	10.1	38.9	68.0	38.8 38.5			226.3 218.9	22.9	101 0		258.1	65.6	56.5 97.8
22		1.3		17.8			138.1		191.0		230.1	05.0	76.5
23	40.1	44.0	,	54.3		107.2	130.1	155.5			333.1	20.5	70.5
24	42.9		8.9	29.0		256.9		170.0				17.3	
25	33.0	14.9	28.0		27.3	146.5		9.3					45.0
26		51.0		47.3		114.5		124.1					100.3
27				49.5	20.0	79.6	51.9	75.7					
28		3.5			14.8	82.6	24.4	23.7					
29		4.5				25.1	10.0	81.4					
30 July 1		6.5			1 1	3.4	18.0	61.4					
001y 1 2		4.1			1.1 0.5	An							
3					9.6								

Table SC 4. SHUMAGIN ISLANDS JUNE FISHERY

DAILY SOCKEYE CATCHES
(Figures in Thousands of Fish)

Date	1962	<u>1963</u>	1964	1965	1966	1967	1968	1969	1970	<u>1971</u>	<u>1972</u>	1973	1974
June 1	0.1			0.2					0.1				,
3 4 5	0.5	0.2	0.2 0.1 0.3					0.4	0.1				
6 7	0.1 0.5	0.1		10.7	0.1			0.2	0.7	0.1			
10 11 12 13 14 15 16 17 18 20 21 22 23 24 25 26 27 28	0.3 0.5 0.9 2.2 3.6 4.9 3.6 8.1 3.2 1.2	0.7 3.8 1.7 1.5 2.3 1.9 2.1 2.3 3.3 5.6	4.9 3.3 0.4 1.7 3.9 9.0 5.0 2.2 10.0 11.1 5.6 13.2 13.5	7.2 14.3 18.0 5.8 18.4 7.4 6.7 2.5 3.3 24.6 17.9 5.3 18.8 12.0 13.2 3.1 2.7 2.7	1.2 0.1 4.6 1.8 0.2 2.2 2.1 8.5 2.0 2.8 2.7 2.7	0.9 2.4 0.1 2.5 6.4 0.7 1.3 8.8 2.1 1.3 2.8 0.5 3.1 2.5 4.0 2.5 3.0 2.5 4.0 2.5 3.0 3.0 3.0 4.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	1.9 2.2 4.7 9.4 13.3 7.0 10.3 9.8 15.3 26.3 17.7 10.9 12.0 9.6 11.7 7.6 4.5	0.3 0.6 0.9 5.7 21.8 2.1 0.1 4.7 2.3 5.5 2.2 1.9 3.9 3.5 2.7	2.2 11.2 3.5 2.0 1.1 3.8 3.8 6.0 6.6 11.7 9.2 16.6 19.1 3.8 2.4 0.5 20.3 9.7 0.3 4.4	0.1 0.2 0.4 0.9 0.2 1.9 0.4 1.3 1.0 1.9 2.4 2.7 4.2 2.1 1.4 2.3 6.0 2.7 2.4	0.9 0.8 1.0 1.7 1.2 2.7 8.2 0.2 7.3 5.6 2.2 12.2 1.8 5.2 6.0 8.1	0.2 0.7 0.5 1.8 1.1 2.9 0.7 1.4	
July 1 2 3 4			1.9	4.7	1.2	0.9		1.2 1.4 1.9 1.3 2.7	2.8 1.4 3.4 2.9	1.7 2.9 2.9	0.6 0.4	1.9 2.0 2.4	
	June 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	June 1 0.1 2 3 4 0.5 5 0.1 6 0.1 7 0.5 8 9 10 11 0.3 12 0.5 13 0.9 14 2.2 15 3.6 16 17 18 4.9 19 3.6 20 8.1 21 3.2 22 1.2 23 24 25 4.3 26 6.6 27 5.6 28 5.0 29 2.4 30 July 1 2 3 4	June 1 0.1 2 3 4 0.5 0.2 5 0.1 0.5 6 0.1 7 0.5 0.1 8 9 10 0.7 11 0.3 3.8 12 0.5 1.7 13 0.9 1.5 14 2.2 2.3 15 3.6 16 17 1.9 18 4.9 2.1 19 3.6 2.3 20 8.1 3.3 21 3.2 5.6 22 1.2 23 24 1.8 25 4.3 2.5 26 6.6 1.0 27 5.6 0.5 28 5.0 29 2.4 30 July 1 2 3 4	June 1 0.1 2 3 0.2 4 0.5 0.2 0.1 5 0.1 0.5 0.3 6 0.1 7 0.5 0.1 8 9 4.9 10 0.7 3.3 11 0.3 3.8 0.4 12 0.5 1.7 13 0.9 1.5 14 2.2 2.3 15 3.6 1.7 16 3.9 17 1.9 9.0 18 4.9 2.1 5.0 19 3.6 2.3 2.2 20 8.1 3.3 21 3.2 5.6 22 1.2 10.0 23 21 24 1.8 5.6 25 4.3 2.5 13.2 26 6.6 1.0 13.5 27 5.6 0.5 28 5.0 1.2 29 2.4 30 July 1 2 3 4	June 1 0.1 0.2 3 0.2 4 0.5 0.2 0.1 5 0.1 0.5 0.3 6 0.1 7 0.5 0.1 10.7 8 7.2 9 4.9 14.3 10 0.7 3.3 18.0 11 0.3 3.8 0.4 5.8 12 0.5 1.7 18.4 13 0.9 1.5 7.4 14 2.2 2.3 6.7 15 3.6 1.7 2.5 16 3.9 3.3 17 1.9 9.0 24.6 18 4.9 2.1 5.0 17.9 19 3.6 2.3 2.2 5.3 20 8.1 3.3 18.8 21 3.2 5.6 12.0 22 1.2 10.0 13.2 23 11.1 3.1 24 1.8 5.6 2.7 25 4.3 2.5 13.2 2.7 26 6.6 1.0 13.5 27 5.6 0.5 28 5.0 1.2 29 2.4 4.4 0.6 July 1 2 3 4 4.4 0.6 1.9 4.7	June 1 0.1 0.2 2 3 0.2 4 0.5 0.2 0.1 5 0.1 0.5 0.3 6 0.1 7 0.5 0.1 10.7 8 7.2 9 4.9 14.3 1.2 10 0.7 3.3 18.0 0.1 11 0.3 3.8 0.4 5.8 12 0.5 1.7 18.4 13 0.9 1.5 7.4 4.6 14 2.2 2.3 6.7 1.8 15 3.6 1.7 2.5 0.2 16 1.9 9.0 24.6 2.1 18 4.9 2.1 5.0 17.9 19 3.6 2.3 2.2 5.3 20 8.1 3.3 18.8 8.5 12 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	June 1 0.1 0.2 2 3 0.2 4 0.5 0.2 0.1 0.5 0.3 6 0.1 7 0.5 0.1 10.7 7.2 9 4.9 14.3 1.2 10 0.7 3.3 18.0 0.1 0.9 11 0.3 3.8 0.4 5.8 2.4 12 0.5 1.7 18.4 0.1 13 0.9 1.5 7.4 4.6 2.5 14 2.2 2.3 6.7 1.8 5.8 15 3.6 1.7 2.5 0.2 6.4 16 3.9 3.3 2.2 6.3 17 1.9 9.0 24.6 2.1 0.7 18 4.9 2.1 5.0 17.9 1.3 19 3.6 2.3 2.2 5.3 8.8 20 8.1 3.3 18.8 8.5 5.8 21 3.2 5.6 12.0 2.0 3.2 22 1.2 10.0 13.2 2.8 0.1 2.3 24 1.8 5.6 2.7 2.7 5.2 25 4.3 2.5 13.2 2.7 5.8 26 6.6 1.0 13.5 2.7 5.6 0.5 27 5.6 0.5 0.1 8.7 2.5 3.0 July 1 2 2 3 4 4.4 0.6 4.0 1.8 3.9 July 1 2 2 3 4 4.4 0.6 4.0 1.8 3.9 July 1	June 1 0.1 0.2 2 3 0.2 4 0.5 0.2 0.1 5 0.3 6 0.1 7 0.5 0.1 10.7 8 7.2 1.9 9 4.9 14.3 1.2 2.2 10 0.5 1.7 18.4 0.1 13.3 13 0.9 1.5 7.4 4.6 2.5 12.3 14 2.2 2.3 6.7 1.8 5.8 7.0 15 3.6 1.7 2.5 0.2 6.4 10.3 16 3.9 3.3 2.2 6.3 9.8 17 1.9 9.0 24.6 2.1 0.7 15.3 18 4.9 2.1 5.0 17.9 1.3 23.9 19 3.6 2.3 2.2 5.3 8.8 26.3 20 8.1 3.3 18.8 8.5 5.8 17.7 21 3.2 5.6 12.0 2.0 3.2 10.9 22 1.2 10.0 13.2 2.8 0.1 12.0 2.3 24 1.8 5.6 2.7 2.7 5.2 9.6 2.5 4.3 2.5 13.2 2.7 5.8 18.6 2.5 2.9 2.4 4.4 0.6 4.0 1.8 4.3 1.9 4.7 1.2 0.9 July 1 2 3 3.0 July 1 2 3 3.0 1.9 4.7 1.2 0.9 July 1 2 3 3.0 July 1 2 3 3.0 1.9 4.7 1.2 0.9	June 1 0.1 0.2 2	June 1 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.5 0.3 0.1 0.5 0.3 0.1 0.5 0.3 0.2 0.7 0.2 0.7 0.5 0.1 0.7 0.5 0.1 0.7 0.2 0.7 0.7 0.5 0.1 0.7 0.7 0.9 0.7 0.9 0.7 0.9 0.7 0.9 0.7 0.9 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.7 0.9 0.5 0.1 0.9 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.1 0.9 0.5 0.5 0.2 0.5 0.2 0.5 0.2 0.5 0.2 0.5 0.2 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	June 1 0.1 0.2 0.2 0.1 0.1 4 0.5 0.2 0.1 0.5 0.3 6 0.1 0.5 0.3 6 0.1 0.5 0.3 6 0.1 0.5 0.3 6 0.1 0.5 0.3 6 0.1 0.5 0.3 6 0.1 0.7 0.5 0.1 10.7 0.2 0.7 0.1 0.1 0.9 0.3 0.2 0.1 0.1 0.1 0.3 3.8 0.4 5.8 0.4 5.8 0.1 10 0.1 13.3 5.7 1.1 0.9 13 0.9 1.5 7.4 4.6 0.5 12.3 21.8 3.8 14 0.2 0.5 1.7 18.4 0.1 13.3 5.7 1.1 0.9 13 0.9 1.5 7.4 4.6 0.5 12.3 21.8 3.8 14 0.2 0.5 1.7 18.4 0.1 13.3 5.7 1.1 0.9 13 0.9 1.5 7.4 4.6 0.5 12.3 21.8 3.8 14 0.2 0.5 1.7 18.4 0.1 13.3 5.7 1.1 0.9 13 0.9 1.5 7.4 4.6 0.5 12.3 21.8 3.8 14 0.2 1.5 0.2 6.4 10.3 0.1 6.0 1.9 1.6 3.9 3.3 2.2 6.3 9.8 4.7 6.6 0.4 1.7 1.9 9.0 24.6 2.1 0.7 15.3 4.7 11.7 1.3 18 4.9 2.1 5.0 17.9 13.3 23.9 2.3 1.0 1.9 1.9 3.6 2.3 2.2 5.3 8.8 26.3 5.5 9.2 1.9 20 8.1 3.3 18.8 8.5 5.8 17.7 2.2 16.6 0.4 1.9 1.9 3.6 2.3 2.2 5.3 8.8 26.3 5.5 9.2 1.9 20 8.1 3.3 18.8 8.5 5.8 17.7 2.2 16.6 2.4 2.1 3.2 5.6 12.0 2.0 3.2 10.9 1.0 19.1 2.7 2.2 1.2 1.2 10.0 13.2 2.8 0.1 12.0 1.9 3.8 4.2 2.1 2.2 1.2 1.2 10.0 13.2 2.8 0.1 12.0 1.9 3.8 4.2 2.1 2.2 1.2 1.1 3.1 2.7 1.3 3.9 2.4 2.1 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.6 0.5 0.1 8.7 2.5 7.6 3.5 0.3 2.7 5.2 9.2 1.9 2.4 4.4 0.6 4.0 1.8 4.3 3.2 2.4 2.9 1.9 3.4 2.9 1.9 4.7 1.2 0.9 1.3 2.9 1.9 3.4 2.9 1.9 3.4 2.9 1.9 4.7 1.2 0.9 1.3 2.7 1.3 2.9 1.0 1.9 3.4 2.9 1.3 2.7 1.3 3.2 2.9 1.9 3.4 2.9 1.9 3.4 2.9 1.9 3.4 2.9 1.9 4.7 1.2 0.9 1.3 2.7 1.3 2.9 1.0 1.9 3.4 2.9 1.9 4.7 1.2 0.9 1.3 2.7 1.3 2.9 1.9 3.4 2.9 1.3 2.7 1.3 3.3 2.9 2.4 3.4 3.4 3.2 2.9 1.3 3.3 3.4 3.2 2.4 3.9 3.4 3.2 2.9 1.9 3.4 2.9 3.4 3.9 3.4 3.2 2.9 3.1 3.3 3.4 3.2 2.4 3.9 3.4 3.2 3.9 3.4 3.2 3.9 3.4 3.2 3.9 3.4 3.2 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.4 3.9 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	June 1	June 1 0.1 0.2 0.2 0.1 0.1 0.2 0.4 1.2 0.4 1.2 0.5 0.1 0.5 0.3 0.1 0.7 0.1 0.7 0.5 0.1 10.7 0.7 0.5 0.1 10.7 0.7 0.5 0.1 10.7 0.7 0.9 0.2 0.7 0.1 0.6 110 0.7 0.7 0.3 3.8 0.4 5.8 2.4 9.4 2.0 0.4 0.9 0.2 1.2 0.5 1.7 18.4 0.1 13.3 5.7 1.1 0.9 0.8 0.7 13 0.9 1.5 7.4 4.6 2.5 12.3 21.8 3.8 1.0 0.5 1.7 18.5 3.6 1.7 2.5 0.2 6.4 10.3 0.1 6.0 1.9 16 3.9 3.3 2.2 6.3 9.8 4.7 6.6 0.4 1.2 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9

Table SC 4.

SHUMAGIN ISLANDS JUNE FISHERY DAILY SOCKEYE CATCHES (Figures in Thousands of Fish)

Date	<u>, 1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	1979	<u>1980</u>	1981	1982	1983	1984	1985	1986	1987
June 1													,
2 3		0.2							2.0 1.6	6.4	7.0		
4		0.1			•			•	7.8	16.5			
4 5 6 7 8 9 10									13.0 7.9		9.5		
7		0.3	0.1						7 • 5		42.6		
9		0.1	0.1 3.4				2.3	0.3					0.1
	2 0	0.5	3.7	0.4			1.6	1.5					31.6
11 12	2.8	1.0		0.4 3.7			26.7 22.3	0.9	90.8	75.1	59.9	6.3	
13 14	2.3	1 1	12.1	3.6	6.2		32.7		87.1	39.9			
15		1.1 4.5		0.1 9.1	12.7 12.4	58.1	37.0 20.3	1.6 14.9	78.6		75.5	28.4	23.6
16 17	5.7	5.5		4.4	4.9	55.4	40.3	25.8				25.0	
18	23.9	12.5		0.2 5.0	7.8 8.6	31.1 34.4		40.7 23.4				14.0	
19 20	20.2		26.5	5.7 2.6	16.8	10.1 20.6	24.3 54.2	42.8 23.5	127.7	76.3	53.0		
21	20.2	26.7	40.5	2.3	13.6 21.3 7.1	32.7	43.4	63.8			62.2	22.6	55.1
22 23		19.7	_	0.1 3.3	7.1	17.4 13.4	36.4	98.0 65.9					
24		13.7		4.8	8.0 4.1	6.3		05.5				23.0 13.3	
25 26				10.1	17.8 18.5	13.0 73.6		47.7		42.5	26.2	23.5	20.0
27				7.1	10.7	47.1		7/./		42.5	26.2		30.2
28 29				5.4	8.7	45.2 10.7					30.0		
30 July 1						6.0							
						13.5 29.9							
2 3 4						15.6							
u						38.0-							

SOUTH UNIMAK JUNE FISHERY DAILY CHUM CATCHES (Figures in Thousands of Fish)

<u>Date</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u> 1977</u>	<u> 1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	1987	
June 1		NF							0.2		0.8					
2		NF				1.0			0.5	3.6	5.6					•
3		NF		0.3					0.6	1.0	7.3	12.9	8.9			
4		NF							1.2	2.7	13.0	32.5				
5		NF				0.1	0.4			3.0	17.3		34.1			
6		NF				0.1	2.6		1.2	9.2	31.2					
7		NF		3.6	0.2	0.4	0.7			10.2			36.0		ŧ	
8		NF		8.6	0.4	0.1	1.9	0.3	1.8	13.3					4.9	
9		NF			0.9	0.2	1.3	0.4	10.9	4.2			53.0			
10		NF	2.1	13.9	4.2	1.1	1.5	1.6	4.8	10.4					10.9	
11	11.1	NF		55.4			3.4		24.0	19.8				13.8	22.5	
12	14.8	NF	7.0			2.9	0.7		36.0	35.8	88.5	90.7	48.5			
13	16.9	NF			2.0	1.9	3.9		48.2	13.5	109.0	23.4				
14	26.8	NF		14.9		4.3	7.1		24.1	7.0	99.3		65.7	54.8	24.1	Ļ
15		NF		32.8	2.2	5.4	1.9	8.3	10.4	98.2					30.2	L
16		NF	13.4		18.7	2.6	0.7	36.7	7.5	105.0				35.3		
17		NF		31.7	12.5	1.6	1.1	41.3		92.0					63.8	
18		NF	8.9	52.0	12.0	7.2	2.2	58.2		57.9				97.5	54.9	
19	25.2	NF				7.7	2.7	34.0	45.6	66.6	169.6	68.4	36.3			
20		NF	3.3		21.6	3.7	6.8	27.4	39.7	6.4					23.1	
21		NF		23.4		11.0	7.5	51.9	37.9	52.2	73.3		19.5	32.0	48.0	
22	19.2	NF				2.0	3.3	44.0	26.9	43.4					42.7	
23	26.0	NF	9.4	30.7		10.6	3.1	24.1		55.8			42.7	6.6		
24	31.4	NF	21.2		6.2	9.3	2.7	52.7		50.6				4.7		
25		NF		14.6	13.4		1.6	24.5		2.3				8.1	24.2	
26		NF		44.1	,	12.8	2.4	18.3	47.3	43.7	•				56.6	
27		NF				17.4	2.9	18.5	75.1	42.7					•	
28		NF		2.5			0.7	11.4	42.8	7.9						
29	10.7	NF		3.4				2.1		45.3						
30		NF		4.5				1.3	34.5	30.6						

Table SC 6.

SHUMAGIN ISLANDS JUNE FISHERY DAILY CHUM CATCHES (Figures in Thousands of Fish)

<u>Date</u>	<u>1973</u>	1974	1975	<u>1976</u>	1977	<u>1978</u>	<u>1979</u>	1980	<u>1981</u>	1982	<u>1983</u>	1984	1985	1986	<u>1987</u>	<u>1988</u>
June 1				0.1					•							
2				2.3							4.6 6.8	2.3	11.3			
3 4				0.8							6.4	11.8			•	
5 6											14.0 5.4		13.0			
7				0.8							3.4	1	31.0			
8			0.0	0.1	0.2				3.3	1.2						
6 7 8 9 10			0.2	5.4	5.5 3.5				1.5	3.2		1			8.9	
11	0.5		5.2	6.3		1 6			8.1	1.6	24 1	20.0	15.0	3.9		
12 13	1.4 0.7		1.6		8.4	$\frac{1.6}{1.9}$	1.8		8.1 5.9 4.3		34.1 40.3	26.8 13.0	15.2			
14	2.9		1.0	1.3	.		4.7		3.0	6.2	23.3		20.0	23.0	6.8	.96
15 16			5.3	7.5		1.8 1.1	2.1	5.9 3.3	1.4 3.8	12.9 12.7				14.2		
17				9.9			1.4 2.2 2.6	6.0	0.0	16.2						
18	6.1	-	12.6	12.6		$0.8 \\ 0.9$	2.6 4.1	2.9 1.5	4.4	6.8 9.0	34.3	16.6	10.1	12.1		
19 20	0.1		10.6		4.4	0.6	2.7	1.2	6.2	9.7	0 1 . 0	10.0			13.1	
21	1 1			15.5		0.7	3.4	2.2 1.1	5.6 6.8	17.5 30.4			15.0	10.9		
22	1.4 0.5			10.9	1.9	1.1	1.1 1.2	1.1	17.3	30.4				13.1		
24					2.3	0.4	0.9							8.5 13.3		
21 22 23 24 25 26					2.9	3.5 3.8	1.6 7.2		15.6			38.6	8.9	13.3	8.2	
27					1.1	3.9	4.9						0 1			
28 29	9.4				0.8	2.2	5.8 2.5						. 9.1			
29 30							2.1									

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Table SC 7.

SOUTH UNIMAK SALMON CATCHES BY GUIDELINE HARVEST LEVEL PERIODS SOCKEYE VS CHUMS (Figures in Thousands of Fish)

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		June	1 - 11		June	12 - 18		June	19 - 25		June 2	
Year	* S	ockeye	Chums	* S	ockeve	Chums	* (Sockeye		* S	ockeye	Chums
1975	(1)	1	2	(3)	63	28	(4)	126	34		**	_
1976	(5)	9	82	(4)	60	137	(3)	99	69	(5)	69	32
1977	(3)	6	6	(5)	85	46	(3)	103	41		-	-
1978	(6)	1	3	(7·)	96	32	(6)	225	44	(2)	97	30
1979	(7)	12	12	(7)	213	18	(7)	390	27	(6)	68	7
1980	(4)	12	2	(4)	885	144	(7)	1529	259	(5)	305	52
1981	(10)	64	45	(5)	430	126	(4)	786	150	(4)	194	200
1982	(10)	36	77	(5)	548	409	(6)	721	277	(5)	366	170
1983	(6)	141	75	(3)	793	298	(2)	613	246		-	-
1984	(2)	75	51	(1)	593	114	(1)	464	68		-	-
1985	(4)	133	132	(2)	589	114	(3)	743	99		-	- .
1986	(1)	8	14	(3)	177	186	(4)	129	52		-	-
1987	(3)	32	38	(4)	244	173	(4)	276	138	(1)	100	57

^{*} Figures in parenthesis are fishing days.

^{**} The fishery was extended into early July during 1976 and 1979, those figures are included.

Table SC 8.

SHUMAGIN ISLANDS SALMON CATCHES BY GUIDELINE HARVEST LEVEL PERIODS SOCKEYE VS CHUMS (Figures in Thousands of Fish)

											**	
Year	**	<u>June 1 -</u> Sockeye	11 Chums	*	June 12 Sockeye	- 18 Chums	* -	June 19 - Sockeye	Chums	*	June 26 Sockeye	
1975	(1)	3	5	(3)	26	20	(1)	20	11		-	_
1976	(6)	2	13	(4)	24	31	(2)	46	26		-	-
1977	(3)	7	9	(1)	12	8	(1)	27	4		-	-
1978		-	-	(5)	26	6	(6)	19	7	(3)	23	5
1979		••	-	(6)	53	15	(7)	89	16	(3)	38	10
1980		-	-	(4)	179	18	(7)	114	10	(9 [°])	280	44
1981	(3)	31	13	(5)	153	26	(4)	158	23		-	-
1982	(3)	3	6	(4)	106	55 .	(5)	294	84	(1)	48	16
1983	(5)	32	37	(3)	257	98	(1)	128	34		-	_
1984	(2)	23	14	(1)	116	40	(1)	76	17	(1)	43	39
1985	(3)	60	55	(2)	135	33	(2)	115	25	(2)	56	18
1986	(1)	6	4	(3)	67	49	(4)	82	46		<u>-</u> '	_
1987	(1)	32	9	(1)	24	7	(1)	55	13	(1)	30	8

^{*} Figures in parenthesis are fishing days.

^{**} The fishery was extended into early July during 1980, those figures are included.

SHUMAGIN ISLAND AND SOUTH UNIMAK JUNE FISHERIES (Fish in Thousands)

	SHUMAGINS Sockeye/			UNIMAK		TOTAL Sockeye7			
Year	Sockeye	Chum	Chum	Sockeye	Chum	Sockeye7 Chum	Sockeye	Chum	Sockeye/ Chum
1001	300 Keye	0114111		<u> </u>	0114111		<u> 30ckeye</u>	CHUIII	
1960	19	11	1.73	137	84	1.63	156	95	1.64
1961	55	36	1.52	199	157	1.26	254	193	1.32
1962	5 4	6 1	.88	272	209	1.30	326	270	1.21
1963	33	36	.91	116	81	1.43	149	117	1.27
1964	85	67	1.27	159	161	0.99	244	228	1.07
1965	207	45	4.60	568	121	4.69	775	166	4.67
1966	5 4	17	3.18	528	215	2.46	582	237	2.51
1967	69	51	1.35	186	73	2.55	255	124	2.06
1968	233	51	4.57	342	115	2.97	575	166	3.46
1969	76	13	5.85	781	254	3.07	857	267	3.21
1970	153	49	3.12	1,530	403	3.80	1,683	452	3.72
1971	45	115	0.39	565	554	1.02	610	669	0.91
1972	76	108	0.70	443	468	0.95	519	576	0.90
1973	23	23	1.00	239	189	1.26	263	212	1.24
1974	ΝF	NF	-	NF	ΝF	-	ΝF	NF	-
1975	49	36	1.36	190	65	2.92	239	101	2.37
1976	72	74	0.97	235	327	0.72	307	401	0.77
1977	46	22	2.09	193	93	2.08	239	115	2.08
1978	68	18	3.78	419	105	3.99	487	123	3.96
1979	179	4 1	4.37	683	64	10.67	862	105	8.21
1980	572	71	8.06	2,731	457	5.98	3,303	528	6.26
1981	351	54	6.50	1,474	521	2.83	1,825	575	3.17
1982	451	160	2.82	1,670	934	1.79	2,121	1,094	1.94
1983	416	169	2.46	1,545	615	2.51	1,961	784	2.50
1984	257	109	2.36	1,131	228	4.96	1,388	337	4.12
1985	367	134	2.74	1,495	345	4.33	1,862	479	3.89
1986	156	99	1.58	314	252	1.25	470	351	1.34
1987	141	37	3.81	652	406	1.61	793	443	1.79

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SOCKEYE PER CHUM (All Gear)

Year	June 1-11	June 12-18	June 19-25	June 26-30	June <u>Total</u>
		<u>s(</u>	OUTH UNIMAK	,	
1975	.50	2.25	3.71	_	2.92
1976	.11	.44	1.43	2.16	.72
1977	1.00	1.85	2.51		2.08
1978	.33	3.00	5.11	3.23	3.99
1979	1.00	11.83	14.44	9.71	10.67
1980	6.00	6.15	5.90	5.87	5.98
1981	1.42	3.41	5.24	.97	2.83
1982	.47	1.34	2.60	2.15	1.79
1983	1.88	2.67	2.49	-	2.51
1984	1.47	5.20	6.82	-	4.96
1985	1.01	5.16	7.84	-	4.33
1986	.57	.95	2.48	_	1.25
1987	.84	1.41	2.01	1.79	1.61
Average	1.3	3.5	4.8	3.7	3.5
	-	SHUM	MAGIN ISLANDS	5	
1975	.60	1.30	1.82	_	1.36
1976	.15	.77	1.77	-	.97
1977	.78	1.50	6.75	-	2.09
1978	-	4.33	2.71	4.60	3.78
1979	-	3.53	5.56	3.80	4.37
1980	-	9.94	11.40	6.36	8.06
1981	2.38	5.88	6.87 -	-	6.50
1982	.50	1.93	3.50	3.00	2.82
1983	.86	2.62	3.76	-	2.46
1984	1.64	2.90	4.47	1.10	2.36
1985	1.08	3.84	4.59	3.14	2.74
1986	1.50	1.37	1.78	-	1.58
1987	3.55	3.46	4.20	3.69	3.81
Average	1.3	3.3	4.6	3.7	3.3
		60			

Table SC 11.

SOCKEYE PER CHUM SOUTH UNIMAK JUNE FISHERY

<u>Year</u>	Purse <u>Seine</u>	Drift Gillnet	Set <u>Gillnet</u>	All <u>Gear</u>
1977	3.1	2.0	4.9	2.1
1978	7.2	3.6	27.5	4.0
1979	24.4	4.5	14.7	10.7
1980	5.8	6.7	54.2	6.0
1981	2.3	3.7	21.4	2.8
1982	2.1	1.5	11.1	1.8
1983	2.3	2.9	12.8	2.5
1984	5.2	4.4	36.4	5.0
1985	6.4	2.8	13.2	4.3
1986	1.3	1.2	6.7	1.2
1987	1.5	1.6	5.2	1.6
0	F (2.0	10.0	2 2
Average	5.6	3.2	18.9	3.8

SOUTH UNIMAK JUNE FISHERY PERCENT COMPOSITION OF SOCKEYE AND CHUM CATCHES BY GEAR TYPE 1977 - 1987

Year	Seine	Sockeye Drift Gillnet	Set <u>Gillnet</u>	Seine	Chum Drift Gillnet	Set Gillnet
1977	15.0	84.5	0.5	10.8	89.0	0.2
1978	18.1	81.4	0.5	9.9	90.0	0.1
1979	71.0	28.8	0.2	31 .0	68.9	0.1
1980	76.0	23.5	0.5	79.0	20.9	0.1
1981	51.0	46.9	2.1	64.0	35.7	0.3
1982	54.0	44.8	1.2	46.0	53.8	0.2
1983	60.0	39.3	0.7	66.0	33.9	0.1
1984	64.0	35.0	1.0	60.0	39.9	0.1
1985	62.0	37.3	0.7	42.0	57.8	0.2
1986	46.7	51.7	1.6	43.8	55.9	0.3
1987	36.5	61.4	2.1	38.4	60.9	0.7
Average	50.4	48.6	1.0	44.6	55.2	0.2

Table SC 12.

SOCKEYE PER CHUM SHUMAGIN ISLANDS JUNE FISHERY

<u>Year</u>	Purse <u>Seine</u>	Set <u>Gillnet</u>	· <u>Total</u>
1977	2.0	10.6	2.1
1978	3.8	1.2	3.8
1979	4.2	7.7	4.4
1980	8.0	9.0	8.1
1981	6.2	25.5	6.5
1982	2.8	6.7	2.8
1983	2.4	16.3	2.5
1984	2.2	19.2	2.4
1985	2.7	4.3	2.7
1986	1.4	4.7	1.6
1987	3.1	13.2	3.8
Average	3.5	10.8	3.7

SHUMAGIN ISLANDS JUNE FISHERY PERCENT COMPOSITION OF SOCKEYE AND CHUM CATCHES BY GEAR TYPE 1977 - 1987

	Sc	ockeye	Chum			
<u>Year</u>	Seine	Set <u>Gillnet</u>	Seine	Set <u>Gillnet</u>		
1977	94.9	5.1	99.0	1.0		
1978	97.2	2.8	96.3	3.7		
1979	92.4	7.6	95.7	4.3		
1980	96.4	3.6	96.7	3.3		
1981	94.8	5.2	98.7	1.3		
1982 -	97.3	2.7	98.9	1.1		
1983	97.4	2.6	99.6	0.4		
1984	94.7	5.3	99.3	0.7		
1985	95.2	4.8	97.0	3.0		
1986	85.0	15.0	95.0	5.0		
1987	75.5	24.5	93.0	7.0		
Average	92.8	7.2	97.2	2.8		

Table SC 13.

SOUTH PENINSULA JUNE FISHERY VS. ACTUAL BRISTOL BAY HARVEST SOCKEYE SALMON

					•	
Year	Guideline Harvest Level (GHL)	GHL % of Actual Bristol B. Catch	Actual S. Pen. <u>Catch</u>	S. Pen. % of Actual Bristol B. Catch	Actual Bristol B. <u>Catch</u>	S. Pen GHL if Actual Bristol B. Catch Was Forecasted
1975	215,000	4.39	239,000	4.88	4,899,000	407,000
1976	425,000	7.56	307,000	5.46	5,619,000	466,000
1977	237,000	4.86	239,000	4.90	4,878,000	405,000
1978	522,000	5.26	487,000	4.91	9,928,000	824,000
1979	1,100,000	5.13	862,000	4.02	21,429,000	1,779,000
					·	
1980*	3,068,000	12.91	3,303,000	13.90	23,762,000	1,972,000
1981	1,760,000	6.87	1,825,000	7.13	25,603,000	2,125,000
1982	2,258,000	14.95	2,121,000	14.04	15,104,000	1,254,000
1983	1,793,000	4.80	1,961,000	5.25	37,372,000	3,102,000
1984	1,356,000	5.49	1,389,000	5.63	24,684,000	2,049,000
1985	1,685,000	7.18	1,862,000	7.93	23,474,000	1,948,000
1986**	1,107,000	6.97	470,000	2.96	15,889,000	1,319,000
1987	775,000	4.83	793,000	4.94	16,048,000	1,332,000

^{* 1980} Bristol Bay sockeye catch would have been much larger had it not been for a lengthy strike.

Includes only South Unimak and Shumagin Islands June fisheries. Target percentage is 8.3.

NOTE: 1984 through 1987 Bristol Bay catch figures are preliminary.

^{**}The guideline harvest level if chum salmon restrictions were not placed on the fishery.

Table SC 14.

SOUTH UNIMAK JUNE FISHERY VS ACTUAL BRISTOL BAY HARVEST SOCKEYE SALMON

	4					
	•1			S. Unimak		
		GHL % of	Actual	% of		S. Unimak GHL
	Guideline	Actual	South	Actual	Actual	If Forecast
	Harvest	Bristol B.	Unimak	Bristol B.	Bristol B.	Was Actual
Year	Level (GHL)	Catch	<u>Catch</u>	Catch	Catch	Catch
						-
1975	165,000	3.37	190,000	3.88	4,899,000	333,000
1976	350,000	6.23	235,000	3.18	5,619,000	382,000
1977	195,000	4.00	193,000	3.96	4,878,000	332,000
1978	428,000	4.31	419,000	4.22	9,928,000	675,000
1979	900,000	4.20	683,000	3.19	21,429,000	1,457,000
1980*	2,513,000	10.58	2,731,000	11.49	23,762,000	1,616,000
1981	1,442,000	5.63	1,474,000	5.76	25,603,000	1,741,000
1982	1,850,000	12.21	1,670,000	11.03	15,146,000	1,030,000
1983	1,469,000	3.93	1,545,000	4.13	37,372,000	2,541,000
1984	1,111,000	4.50	1,132,000	4.59	24,684,000	1,679,000
1985	1,380,000	5.88	1,495,000	6.37	23,474,000	1,596,000
1986**	907,000	5.71	314,000	1.98	15,889,000	1,080,000
1987	635,000	3.96	652,000	4.06	16,048,000	1,091,000
			-			

^{* 1980} Bristol Bay area sockeye catch would have been much larger had it not been for a lengthy strike.

Target percentage is 6.8

NOTE: 1984 through 1987 Bristol Bay catch figures are preliminary.

^{**}The guideline harvest level if chum salmon restrictions were not placed on the fishery.

Table SC 15.

SHUMAGIN ISLANDS JUNE FISHERY VS ACTUAL BRISTOL BAY HARVEST SOCKEYE SALMON

<u>Year</u>	Guideline Harvest Level (GHL)	GHL % of Actual Bristol B. Catch	Actual Shumagins <u>Catch</u>	Shumagins % of Actual Bristol B. Catch	Actual Bristol B. <u>Catch</u>	Shumagin GHL if Actual Bristol B. Catch Was Forecasted
1975	50,000	1.02	49,000	1.00	4,899,000	73,000
1976	75,000	1.33	72,000	1.28	5,619,000	84,000
1977	42,000	0.86	46,000	0.94	4,878,000	73,000
1978	94,000	0.95	68,000	0.68	9,928,000	149,000
1979	200,000	0.93	179,000	0.84	21,429,000	321,000
1980*	555,000	2.34	572,000	2.41	23,762,000	356,000
1981	318,000	1.24	351,000	1.37	25,603,000	384,000
1982	408,000	2.70	451,000	2.99	15,104,000	227,000
1983	324,000	0.87	416,000	1.11	37,372,000	561,000
1984	245,000	1.00	257,000	1.04	24,684,000	374,000
1985	305,000	1.30	367,000	1.56	23,474,000	352,000
1986**	200,000	1.26	156,000	0.98	15,889,000	238,000
1987	140,000	0.87	141,000	0.88	16,048,000	241,000

^{* 1980} Bristol Bay sockeye catch would have been much larger had it not been for a lengthy strike.

Target percentage is 1.5

NOTE: 1984 through 1987 Bristol Bay catch figures are preliminary.

^{**}The guideline harvest level if chum salmon restrictions were not placed on the fishery.

Table SC 16.

SALMON GEAR ON SOUTH SIDE OF ALASKA PENINSULA AREA DURING JUNE

Year	Purse Seine	Drift Gill Net	Set Gill Net
1976	25	94	16
1977	15	98	16
1978	22	106	17
1979	33	100	22
1980	51	123	24
1981	74	126	32
1982	85	126	33
1983	92	139	41
1984	104	143	52
1985	105	140	51
1986	102	153	50
1987	84	140	62

Table SC 17

Number of Limited Entry Permits 1/ and Fishing Effort 2 in the Alaska Peninsula Area

		PURSE SEINE		DRIFT (DRIFT GILLNET		SET GILLNET	
YEAR		Permits <u>l</u> / Available	Permits Fished	Permits Available	Permits ^{3/} Fished	Permits Available	Permits ³ / Fished	
1976	* *	114	(90)	155	(129)	115	(59)	
1977		113	(87)	156	(130)	108	(65)	
1978		123	(114)	158	(160)	113	(69)	
1979		123	(130)	161	(185)	113	(91)	
1980		126	(125)	163	(181)	113	(104)	
1981		127	(122)	164	(173)	115	(109)	
1982		127	(119)	164	(182)	115	(111)	
1983		127	(121)	166	(177)	114	(101)	
1984		126	(121)	165	(204)	113	(119)	
1985		127	(123)	165	(205)	113	(120)	
1986		125	(121)	165	(201)	114	(108)	
1987		125	(116)	165	(211)	114	(117)	

 $[\]frac{1}{I}$ Includes both permanent permits and interim use permits. In 1987 there were 6 interim use seine permits, 7 drift gillnet permits and 1 set gillnet permit.

^{2/}Making at least one delivery during the year.

^{3/}During a portion of the season, in specific sections, Area T set and drift gillnet fishermen are allowed to fish in the Alaska Peninsula Area, Area M. Therefore the number of permits fished may be higher than the number of Area M permits.

Table SD 1.

SOUTH PENINSULA SALMON RUNS (In Thousands of Fish)

<u>Year</u>		<u>Kings</u>	<u>Sockeyes</u>	<u>Cohos</u>	<u>Pinks</u>	<u>Chums</u>
1962	Catch Escapement Total	3.3	420.0 _18.8 438.8	12.5	1,965.4 1,598.8 3,564.2	824.8 399.4 1,224.2
1963	Catch Escapement Total	1.9 - 1.9	204.4 <u>23.0</u> 227.4	16.5 ————————————————————————————————————	2,367.7 1,317.9 3,685.6	461.3 446.7 908.0
1964	Catch Escapement Total	2.0 - 2.0	370.8 <u>15.7</u> 386.5	13.6 	2,740.3 1,436.4 4,176.7	751.0 <u>454.8</u> 1,205.8
1965	Catch Escapement Total	2.1 - 2.1	915.7 <u>12.1</u> 927.8	34.2	2,884.1 1,035.4 3,919.5	556.4 <u>228.0</u> 784.4
1966	Catch Escapement Total	1.4	606.2 17.0 623.2	6.3	305.8 719.4 1,025.2	494.4 <u>422.0</u> 916.4
1967	Catch Escapement Total	1.6 - 1.6	294.1 <u>16.2</u> 310.3	2.9	78.3 <u>445.5</u> 523.8	245.2 <u>182.9</u> 428.1
1968	Catch Escapement Total	1.4 - 1.4	699.8 _12.8 712.6	31.1	1,287.1 823.3 2,110.4	325.3 279.1 604.4
1969	Catch Escapement Total	1.9 - 1.9	912.8 <u>29.5</u> 942.3	10.9	1,219.1 2,474.9 3,694.0	389.2 <u>134.6</u> 523.8
1970	Catch Escapement Total	1.8 - 1.8	1,794.6 <u>16.5</u> 1,811.1	32.2	1,723.4 1,298.9 3,022.3	981.7 280.5 1,262.2
1971	Catch Escapement Total	$\frac{2.2}{2.2}$	715.5 <u>19.4</u> 734.9	16.8	1,450.1 <u>702.7</u> 2,152.8	1,366.6 343.2 1,709.8
1972	Catch Escapement Total	1.3 - 1.3	557.8 <u>11.9</u> 569.7	8.0 - 8.0	78.0 <u>111.4</u> 189.4	727.5 <u>254.5</u> 982.0
1973	Catch Escapement Total	0.4 - 0.4	330.2 <u>7.3</u> 337.5	6.6	58.3 <u>110.8</u> 169.1	293.0 505.5 798.5

Table SD 1.

SOUTH PENINSULA SALMON RUNS (In Thousands of Fish) (continued)

<u>Year</u>		<u>Kings</u>	<u>Sockeyes</u>	<u>Cohos</u>	<u>Pinks</u>	<u>Chums</u>
1974	Catch Escapement Total	0.5 - 0.5	204.7 <u>95.6</u> 300.3	9.4	100.2 <u>284.4</u> 384.6	71.5 257.3 328.8
1975	Catch Escapement Total	0.1 - 0.1	268.4 <u>51.7</u> 320.1	0 -	61.7 <u>552.1</u> 613.8	132.9 193.3 326.2
1976	Catch Escapement Total	2.1 - 2.1	375.0 <u>69.7</u> 444.7	0.2	2,367.0 1,456.4 3,823.4	532.5 327.2 859.7
1977	Catch Escapement Total	0.5 - 0.5	311.7 <u>64.9</u> 376.6	2.1 - 2.1	1,448.6 2,677.8 4,126.4	243.2 <u>774.9</u> 1,018.1
1978	Catch Escapement Total	0.8 - 0.8	579.5 <u>64.8</u> 644.3	60.7	5,490.0 2,858.7 8,348.7	547.0 600.5 1,147.5
1979	Catch Escapement Total	2.1 - 2.1	1,149.7 53.3 1,203.0	356.5	6,570.6 2,629.5 9,200.1	483.0 411.1 894.1
1980	Catch Escapement Total	4.8 - 4.8	3,613.0 <u>45.9</u> 3,658.9	274.2	7,861.5 <u>2,641.6</u> 10,503.1	1,351.2 <u>362.4</u> 1,713.6
1981	Catch Escapement Total	12.2 - 12.2	2,255.2 45.7 2,300.9	162.2	5,035.9 2,307.5 7,343.4	1,770.3 <u>381.3</u> 2,151.6
1982	Catch Escapement Total	9.8 - 9.8	2,346.0 <u>39.2</u> 2,385.2	256.0 	6,734.9 2,293.0 9,027.9	2,272.5 386.9 2,659.4
1983	Catch Escapement Total	26.9 - 26.9	2,556.6 59.2 2,615.8	127.7	2,827.6 <u>851.2</u> 3,678.8	1,707.1 446.5 2,153.6
1984	Catch Escapement Total	9.2 - 9.2	2,318.0 <u>54.8</u> 2,372.8	309.1	11,589.3 3,811.6 15,400.9	1,656.5 699.7 2,356.2

Table SD 1.

SOUTH PENINSULA SALMON RUNS (In Thousands of Fish) (continued)

<u>Year</u>		<u>Kings</u>	<u>Sockeyes</u>	<u>Cohos</u>	<u>Pinks</u>	Chums
1985	Catch Escapement Total	7.9 - 7.9	2,214.6 <u>49.9</u> 2,264.5	172.5 	4,433.7 <u>1,614.1</u> 6,047.8	1,393.1 503.4 1,896.5
1986	Catch Escapement Total	5.6 - 5.6	$\begin{array}{r} 1,223.0 \\ \underline{48.0} \\ 1,271.0 \end{array}$	235.9	4,031.5 1,716.7 5,748.2	1,749.7 544.6 2,294.3
1987	Catch Escapement Total	9.2 - 9.2	1,449.9 44.6 1,494.5	224.7 	1,208.6 1,540.5 2,749.1	1,376.3 620.7 1,997.0

Table SD 2.

SOUTH PENINSULA PINK SALMON RUNS (In Thousands of Fish)

(Not including June Migrants)

		Southeastern and	Southwestern and	South	/ luno	Mignantal	
<u>Year</u>	4 1	South Central Districts	Unimak <u>Districts</u>	Peninsula Totals	South Unimak	Migrants) Shumagins	To
1962	Catch Escapement Total	$\begin{array}{r} 922.1 \\ 826.1 \\ \hline 1,748.2 \end{array}$	977.3 772.7 1750.0	1,899.4 1,598.8 3,498.2	42	24	
1963	Catch Escapement Total	1,733.9 886.5 2,620.4	590.8 431.4 1,022.2	2,324.7 1,317.9 3,642.6	14	29	•
1964	Catch Escapement Total	1,514.6 902.4 2,417.0	1,190.7 534.0 1,724.7	2,705.3 1,436.4 4,141.7	18	17	:
1965	Catch Escapement Total	2,331.4 789.9 3,121.3	474.7 245.5 720.2	2,806.1 1,035.4 3,841.5	43	35 .	
1966	Catch Escapement Total	220.3 627.4 847.7	68.5 92.0 160.5	288.8 719.4 1,008.2	15	2 .	•
1967	Catch Escapement Total	53.1 <u>327.3</u> <u>380.4</u>	4.2 118.2 122.4	57.3 445.5 502.8	11	10	2
1968	Catch Escapement Total	863.3 528.1 1,391.4	277.8 295.2 573.0	1,141.1 823.3 1,964.4	34	112	14
1969	Catch Escapement Total	862.8 1,906.2 2,769.0	265.3 568.7 834.0	1,128.1 2,474.9 3,603.0	68	23	9
1970	Catch Escapement Total	1,366.1 1,007.9 2,374.0	250.3 291.0 541.3	1,616.4 1,298.9 2,915.3	83	24	10
1971	Catch Escapement Total	1,212.1 488.0 1,700.1	214.0 214.7 428.7	1,426.1 702.7 2,128.8	15	9	2
	Catch Escapement Total	51.2 81.8 133.0	8.8 29.6 38.4	$\begin{array}{c} 60.0 \\ \underline{111.4} \\ 171.4 \end{array}$	12	6	1

Table SD 2.

SOUTH PENINSULA PINK SALMON RUNS (In Thousands of Fish) continued

(Not including June Migrants)

		Southeastern and	Southwestern and	South		e Migrants)	
<u>Year</u>	4	South Central <u>Districts</u>	Unimak <u>Districts</u>	Peninsula <u>Totals</u>	South <u>Unimak</u>	Shumagins	<u>To</u>
1973	Catch Escapement Total	35.1 85.7 120.8	$\frac{1.2}{25.1}$	36.3 110.8 147.1	12	10	,
1974	Catch Escapement Total	95.5 238.6 334.1	4.7 45.8 50.5	$ \begin{array}{r} 100.2 \\ 284.4 \\ \hline 384.6 \end{array} $	0	0	
±1975	Catch Escapement Total	30.4 357.8 388.2	26.3 194.3 220.6	56.7 552.1 608.8	3 .	2	
1976	Catch Escapement Total	2,035.9 1,084.0 3,119.9	307.1 372.4 679.5	2,343.0 1,456.4 3,799.4	18	6	
1977	Catch Escapement Total	1,163.4 2,168.5 3331.9	280.2 509.3 789.5	1,443.6 2,677.8 4,121.4	3	2	
1978	Catch Escapement Total	4,067.3 1,966.3 6,033.6	1,332.7 892.4 2,225.1	5,400.0 2,858.7 8,258.7	47	43	<u>;</u>
1979	Catch Escapement Total	4,845.0 2,125.1 6,970.1	$\begin{array}{r} 1,562.6 \\ \underline{504.4} \\ 2,067.0 \end{array}$	6,407.6 2,629.5 9,037.1	57	106	16
1980	Catch Escapement Total	2,439.6 1,410.4 3,850.0	3,815.6 1,231.2 5,046.8	6,255.2 2,641.6 8,896.8	1,141	466	1,60
1981	Catch Escapement Total	4,196.4 1,875.0 6,071.4	378.5 431.8 810.3	4,574.9 2,306.8 6,881.7	332	129	46
1982	Catch Escapement Total	4,104.9 1,533.2 5,638.1	906.1 759.8 1,665.9	5,011.0 2,293.0 7,304.0	1,037	687	1,72
1983	Catch Escapement Total	2,245.8 639.2 2,885.0	526.8 212.0 738.8	2,772.6 851.2 3,623.8	40	15	Ę

Table SD 2.

SOUTH PENINSULA PINK SALMON RUNS (In Thousands of Fish) continued

(Not including June Migrants)

		Southeastern and South Central	Southwestern and Unimak	South Peninsula	June South	Migrants)	
<u>Year</u>	4.1	Districts	Districts	Totals	<u>Unimak</u>	Shumagins	<u>Tota</u>
1984	Catch Escapement Total	6,533.1 2,526.7 9,059.8	4,136.3 1,284.9 5,421.2	10,669.4 3,811.6 14,481.0	490	449	935
1985	Catch Escapement Total	3,324.8 1,229.3 4,554.1	999.9 384.5 1,384.4	4,324.7 1,613.8 5,938.5	72	37	109
1 9 86	Catch Escapement Total	3,066.9 1,185.5 4,252.4	673.5 531.2 1,204.7	$3,740.4 \\ \underline{1,716.7} \\ 5,457.1$	150	141	291
1987	Catch Escapement Total	1,143.4 1,304.4 2,447.8	48.1 236.1 284.2	1,191.5 1,540.5 2,732.0	11	6	17

Table SD 3.

SOUTH PENINSULA CHUM SALMON RUNS (In Thousands of Fish)

	,	(Not Including Southeastern and	June Migrants) Southwestern		•	(June Migran	ts)
Year	4 1	South Central Districts	and Unimak Districts	<u>Total</u>	South <u>Unimak</u>	Shumagins	Migran Totals
1962	Catch Escapement Total	409.5 238.6 648.1	155.3 160.8 316.1	564.8 399.4 964.2	199	61	260
1963	Catch Escapement Total	278.0 263.0 541.0	80.3 183.7 264.0	358.3 446.7 805.0	67	36	103
1964	Catch Escapement Total	378.8 160.8 539.6	153.3 294.0 447.3	532.1 454.8 986.9	153	67	220
1965	Catch Escapement Total	221.7 203.3 425.0	150.7 24.2 175.4	372.4 228.0 600.4	139	45	184
1966	Catch Escapement Total	221.4 (354.8) 576.8	36.0 67.2 103.2	257.4 422.0 679.4	220	17	237
1967	Catch Escapement Total	118.7 132.8 251.5	4.5 50.1 54.6	123.2 182.9 306.1	71	51	122
1968	Catch Escapement Total	121.4 191.7 313.1	47.6 <u>87.4</u> 135.0	169.0 279.1 448.1	105	51	156
1969	Catch Escapement Total	95.1 96.9 192.0	43.3 37.7 81.0	138.4 134.6 273.0	238	13	251
1970	Catch Escapement Total	482.4 171.7 654.1	87.2 108.8 196.0	569.6 280.5 850.1	363	49	412
1971	Catch Escapement Total	637.1 199.1 836.2	117.5 144.1 261.6	754.6 343.2 1,097.8	497	115	612
1972	Catch Escapement Total	150.6 145.0 295.6	55.9 109.5 165.4	206.5 254.5 461.0	413	108	521

Table SD 3.

SOUTH PENINSULA CHUM SALMON RUNS (In Thousands of Fish) continued

		(Not Including Southeastern and	June Migrants Southwesters and		. ((June Migran	ts)
Year	4	South Central Districts	Unimak Districts	<u>Total</u>	South Unimak	Shumagins	Migrant Totals
1973	Catch Escapement Total	67.1 130.9 198.0	$\begin{array}{c} 12.1 \\ \underline{81.6} \\ \underline{93.7} \end{array}$	79.2 212.5 291.7	178	36	214
1974	Catch Escapement Total	56.6 169.8 226.4	15.3 87.5 102.8	71.9 257.3 329.2	0	0	0
1975	Catch Escapement Total	29.9 160.2 190.1	$\frac{4.0}{33.1}$	33.9 193.3 227.2	64	. 35	99
1976	Catch Escapement Total	109.4 225.3 334.7	25.1 101.9 127.0	134.5 327.2 461.7	326	72	398
1977	Catch Escapement Total	109.4 500.9 610.3	18.8 274.0 292.8	128.2 774.9 903.1	93	22	115
1978	Catch Escapement Total	341.6 386.2 727.8	139.8 214.3 254.1	481.4 600.5 1,081.9	47 .	18	65
1979	Catch Escapement Total	280.4 302.7 583.1	97.6 108.4 206.0	378.0 411.1 789.1	64	41	105
1980	Catch Escapement Total	654.2 241.6 895.8	169.1 120.8 289.9	$ \begin{array}{r} 823.3 \\ \underline{362.4} \\ 1,185.7 \end{array} $	457	71	528
1981	Catch Escapement Total	966.1 234.5 1,200.6	229.2 146.8 376.0	1,195.3 381.3 1,576.6	521	54	575
1982	Catch Escapement Total	922.9 203.0 1,125.9	253.8 183.9 437.7	1,176.7 386.9 1,563.6	935	160	1,095
1983	Catch Escapement Total	600.3 328.9 929.2	$\frac{322.6}{117.6}$ $\frac{440.2}{440.2}$	922.9 446.5 1,369.4	615	169	784

Table SD 3.

SOUTH PENINSULA CHUM SALMON RUNS (In Thousands of Fish) continued

		(Not Including Southeastern and				(June Migrants)		
Year	w 1	South Central <u>Districts</u>	Unimak Districts	<u>Total</u>	South <u>Unimak</u>	Shumagins	Migran Totals	
1984	Catch Escapement Total	832.9 446.0 1,278.9	486.5 253.7 740.2	1,319.4 699.7 2,019.1	228	109	337	
1985	Catch Escapement Total	539.2 284.7 823.9	375.7 218.8 594.5	914.9 503.5 1,418.4	345	133	478	
1986	Catch Escapement Total	981.2 239.6 1,220.8	417.4 305.0 722.4	1,398.6 544.6 1,943.2	252	. 99	351	
1987	Catch Escapement Total	753.2 329.2 1,082.4	180.0 291.5 471.5	933.2 620.7 1,553.9	406	37	443	

Table SE 1.

NORTH PENINSULA SALMON RUNS (In Thousands of Fish)

<u>Year</u>		<u>Kings</u>	Sockeves	Cohos	<u>Pinks</u>	Chums
1962	Catch Escapement Total	5.4 4.4 9.8	249.7 351.2 600.9	35.2	31.2 4.0 35.2	34.9 150.9 185.8
1963	Catch Escapement Total	3.6 6.2 9.8	225.2 351.0 576.2	40.5	6.9 <u>4.4</u> 11.3	49.9 203.2 253.1
1964	Catch Escapement Total	3.6 25.9 29.5	250.8 419.9 670.7	36.6	$\frac{6.8}{(15.1)}$	139.0 156.1 295.1
1965	Catch Escapement Total	$\frac{6.1}{22.1}$ $\frac{22.1}{28.2}$	199.5 238.4 437.9	34.5	2.1 0.9 3.0	69.7 49.3 119.0
1966	Catch Escapement Total	5.6 8.2 13.8	245.3 283.3 528.6	37.3	$ \begin{array}{c} 16.0 \\ \underline{2.0} \\ 18.0 \end{array} $	82.8 149.5 232.3
1967	Catch Escapement Total	5.5 12.2 12.7	224.7 299.7 524.4	46.8	0.7 0.7 1.4	41.3 122.6 163.9
1968	Catch Escapement Total	4.5 15.8 20.3	237.1 251.3 488.4	64.9	0.2 26.5 26.7	73.5 250.8 324.3
1969	Catch Escapement Total	4.8 19.5 24.3	321.3 575.0 896.3	49.1	0.1 4.4 4.5	28.1 146.8 174.9
1970	Catch Escapement Total	3.2 8.3 11.5	213.0 451.5 664.5	26.4 	$\frac{7.8}{11.1}$ $\frac{11.9}{18.9}$	50.2 169.8 220.0
1971	Catch Escapement Total	2.2 <u>5.2</u> 7.4	354.2 435.1 789.3	16.8	$\frac{0.3}{8.6}$	64.2 109.4 173.6
1972	Catch Escapement Total	$\frac{1.8}{5.0}$	179.5 190.2 369.7	8.0	$0.0 \\ \frac{1.3}{1.3}$	84.7 124.0 208.7

Table SE 1.

NORTH PENINSULA SALMON RUNS (In Thousands of Fish) continued

<u>Year</u>		Kings	Sockeyes	Cohos	Pinks	Chums
1973	Catch Escapement Total	4.4 4.3 8.7	171.8 180.2 352.0	6.6	$\frac{0.3}{(0.2)}$	155.7 122.4 278.1
1974	Catch Escapement Total	$\frac{5.1}{3.0}$	247.9 332.8 580.7	24.0	10.5 (23.0) (33.5)	$\begin{array}{r} 35.3 \\ \underline{105.1} \\ 140.4 \end{array}$
1975	Catch Escapement Total	2.1 4.6 6.7	233.5 516.8 750.3	28.2	$\begin{array}{c} 0.3 \\ \underline{0.6} \\ 0.9 \end{array}$	8.7 109.2 117.9
1976	Catch Escapement Total	4.9 6.0 10.9	641.1 532.6 1,173.7	26.0	0.6 37.3 37.9	73.6 293.4 367.0
1977	Catch Escapement Total	5.5 7.1 12.6	471.1 541.1 1,012.2	34.1	$ \begin{array}{r} 0.9 \\ 8.5 \\ \hline 9.4 \end{array} $	129.1 681.2 810.3
1978	Catch Escapement Total	14.2 13.7 27.9	896.2 1,213.5 2,109.7	63.3	466.6 96.8 563.4	$\frac{163.2}{310.5}$ $\frac{310.5}{473.7}$
1979	Catch Escapement Total	17.1 15.8 32.9	1,979.5 1,574.0 3,553.5	112.3	5.0 9.3 14.3	65.7 305.3 371.0
1980	Catch Escapement Total	16.8 11.0 27.8	1,397.1 1,387.6 2,784.7	127.9	301.7 103.6 405.3	700.2 769.5 1,469.7
1981	Catch Escapement Total	18.3 12.4 30.7	1,844.9 1,347.9 3,192.8	155.4	$ \begin{array}{c} 11.2 \\ 6.1 \\ 17.3 \end{array} $	706.8 535.2 1,242.0
1982	Catch Escapement Total	$\frac{30.1}{20.0}$	1,435.3 718.4 2,153.7	238.0	$\frac{12.3}{51.7}$ $\frac{64.0}{64.0}$	331.1 457.6 788.7
1983	Catch Escapement Total	29.5 25.7 55.2	2,093.4 580.3 2,673.7	75.1 ———	3.4 4.0 7.4	348.7 392.6 741.3

Table SE 1.

NORTH PENINSULA SALMON RUNS (In Thousands of Fish) continued

<u>Year</u>		Kings	Sockeyes	Cohos	<u>Pinks</u>	Chums
1984	Catch Escapement Total	23.0 17.7 40.6	1,734.9 826.0 2,560.9	198.5	27.4 56.6 84.0	796.7 870.2 1,666.9
1985	Catch Escapement Total	23.5 12.9 36.4	2,600.5 898.1 3,498.6	167.8 	$\frac{3.1}{1.4}$ $\frac{4.5}{4.5}$	671.1 344.2 1,015.3
1986	Catch Escapement Total	$\frac{11.7}{8.7}$	2,463.7 580.3 3,044.0	164.1	22.6 13.3 35.9	271.2 243.6 514.8
1987	Catch Escapement Total	14.2 10.7 24.9	1,209.4 556.0 1,765.4	171.8 	3.5 0.1 3.6	368.7 510.9 879.6

Figures in parenthesis are very rough extrapolated estimates.

Table SE 2.

MORTHERN DISTRICT KING SALMON RUNS (In Thousands of Fish)

<u>Year</u>	A 1	Cinder River	Port <u>Heiden</u>	Three Hills & Ilnik	Bear River	Herendeen- Moller Bay	Nelson Lagoon	Caribou Flats & Black Hills	Northern District Totals
1962	Catch Escapement Total	0 <u>0</u> 0	$\frac{0.4}{(1.1)}$	0 <u>0</u> 0	0.5 0.5 1.0	0.7 <u>0</u> 0.7	3.7 2.7 6.4	0 (0.1) (0.1)	5.3 4.4 9.7
1963	Catch Escapement Total	0 <u>0</u> 0	$ \begin{array}{c} 0 \\ (0.1) \\ (0.1) \end{array} $	0 <u>0</u> 0	$0.6 \\ 0.2 \\ \hline 0.8$	0.2 0 0.2	2.5 4.0 6.5	$0 \\ \frac{(1.9)}{(1.9)}$	3.3 6.2 9.5
1964	Catch Escapement Total	0 5.8 5.8	0 <u>4.2</u> 4. 2	$\frac{0.1}{0.5}$	0.3 3.0 3.3	0 <u>0</u> 0	$\frac{3.3}{8.4}$ 11.7	$\begin{array}{c} 0 \\ \underline{4.0} \\ 4.0 \end{array}$	3.7 25.9 29.6
1965	Catch Escapement Total	0 $\frac{0.7}{0.7}$	$\frac{1.9}{2.9}$	0.3 0.3 0.3	$0.1 \\ \underline{5.4} \\ \overline{5.5}$	0 0 0	4.0 11.9 15.9	$\frac{0}{3.0}$	6.3 22.0 28.3
1966	Catch Escapement Total	0 <u>0</u> 0	$\frac{0.7}{(1.3)}$	$\frac{0}{0}$	0.1 (0.3) (0.4)	0 <u>0</u> 0	2.4 4.7 7.1	0 $\frac{1.9}{1.9}$	3.2 8.2 11.4
1967	Catch Escapement Total	$\frac{0}{(0.8)}$	1.4 0.5 1.9	0 0.3 0.3	$0.1 \\ 3.0 \\ 3.1$	0.4 0.4 0.4	3.6 <u>5.1</u> 8.7	0 $\frac{1.3}{1.3}$	5.5 11.0 16.5
1968	Catch Escapement Total	0 0.3 0.3	$\frac{1.0}{(1.1)}$	$0.1 \\ 0.1 \\ 0.1$	$\frac{0.3}{2.6}$	$\begin{array}{c} 1.3 \\ \underline{0} \\ 1.3 \end{array}$	2.8 7.3 10.1	0 2.7 2.7	5.5 14.0 19.5
1969	Catch Escapement Total	0 (0.8) (0.8)	$\frac{1.4}{(1.1)}$	0 <u>0</u> 0	$\frac{0.5}{1.0}$	0.5 0 0.5	2.5 8.1 10.6	0 1.6 1.6	4.9 12.6 17.5
1970	Catch Escapement Total	0 0.2 0.2	0 0.3 0.3	0 0.3 0.3	$\frac{0.2}{1.0}$	0.4 0.4	2.6 2.9 5.5	0 2.0 2.0	3.2 6.7 9.9
1971	Catch Escapement Total	0 0.1 0.1	$0\\0.1\\0.1$	$0.1 \\ 0.2 \\ 0.3$	$0.3 \\ 0.8 \\ 1.1$	0.4 0.4	$\frac{1.4}{2.3}$ $\frac{3.7}{3.7}$	$ \begin{array}{c} 0 \\ (1.5) \\ \hline (1.5) \end{array} $	2.2 5.0 7.2
1972	Catch Escapement Total	0 0.7 0.7	0 $\frac{1.6}{1.6}$	0.1 0 0 1	$0.2 \\ 0.1 \\ 0.3$	0.2 0.2 0.2	1.3 1.4 2.7	$0\\\frac{1.0}{1.0}$	$\frac{1.8}{4.8}$ $\frac{6.6}{6.6}$

Table SE 2.

NORTHERN DISTRICT KING SALMON RUNS (In Thousands of Fish) continued

.,		Cinder	Port	Three Hills &	Bear	Herendeen-	Nelson	Caribou Flats	Norther Distric
<u>Year</u>	4	River	<u>Heiden</u>	<u>Ilnik</u>	River	Moller Bay	Lagoon	Black Hills	<u>Totals</u>
1973	Catch Escapement Total	0 0.6 0.6	1.6 0.6 2.2	0 <u>0</u> 0	$0.7 \\ 0.1 \\ 0.8$	0.3 0.3	$\frac{1.5}{1.5}$	0 0.8 0.8	$\frac{4.1}{3.6}$
1974	Catch Escapement Total	0 0.5 0.5	2.5 0.7 3.2	0 <u>0</u>	0.2 0.3 0.5	0.2 <u>0</u> 0.2	$\frac{2.1}{1.1}$ $\frac{3.2}{3.2}$	0 0.4 0.4	5.0 3.0 8.0
[‡] 1975	Catch Escapement Total	$0\\\frac{0.1}{0.1}$	0.4 0.9 .13	0 <u>0</u>	0.3 0.7 1.0	0.2 <u>0</u> 0.2	$\frac{1.2}{2.5}$ $\frac{3.7}{3.7}$	0 0.4 0.4	$\frac{2.1}{4.6}$
1976	Catch Escapement Total	0 $\frac{1.6}{1.6}$	1.5 0.2 1.7	$0.1 \\ 0 \\ 0.1$	$0.5 \\ 0.5 \\ 1.0$	0.6 0.6	2.2 3.3 5.5	0 0.4 0.4	4.9 6.0 10.9
1977	Catch Escapement Total	0 0.1 0.1	$\frac{2.5}{0.7}$	$0.1 \\ 0 \\ 0.1$	0.7 0.7 0.7	0.5 0.5 0.5	1.7 5.6 7.3	$0 \\ 0.7 \\ \hline 0.7$	5.5 7.1 12.6
1978	Catch Escapement Total	0 $\frac{1.1}{1.1}$	9.5 4.2 13.7	0 <u>0</u> 0	0.6 (0.2) (0.8)	0.7 0.7 0.7	3.4 4.2 7.6	0 $\frac{4.0}{4.0}$	14.2 13.7 27.9
1979	Catch Escapement Total	0 0.3 0.3	9.7 (3.2) (12.9)	0 <u>0</u> 0	$\begin{array}{c} 1.4 \\ \underline{0} \\ 1.4 \end{array}$	0.5 0.5	5.4 11.0 16.4	0 $\frac{1.5}{1.5}$	17.0 15.8 32.8
1980	Catch Escapement Total	$ \begin{array}{c} 0 \\ \hline (3.0) \\ \hline (3.0) \end{array} $	$\frac{5.4}{(1.6)}$	$0.1 \\ 0 \\ 0.1$	1.7 0.1 1.8	0.9 <u>0</u> 0.9	8.7 5.5 14.2	0 0.8 0.8	16.8 (11.0) (27.8)
1981	Catch Escapement Total	$\frac{0}{(3.0)}$	6.1 (1.0) (7.1)	$\frac{0}{0}$	1.1 2.3 3.4	0.1 0.1 0.1	$\begin{array}{c} 11.0 \\ \underline{5.2} \\ 16.2 \end{array}$	0 0.9 0.9	18.3 (12.4) 30.7
1982	Catch Escapement Total	$ \begin{array}{c} 0 \\ (2.5) \\ (2.5) \end{array} $	11.0 (7.5) 18.5	0.9 <u>0</u> 0.9	2.9 0.9 3.8	0.6 <u>0</u> 0.6	13.5 7.0 20.5	$\frac{1.2}{2.1}$	30.1 20.0 50.1
1983	Catch Escapement Total	$\begin{array}{c} 0 \\ \frac{7.2}{7.2} \end{array}$	6.8 0.9 7.7	$\begin{array}{c} 0.9 \\ \underline{0} \\ 0.9 \end{array}$	$\frac{8.6}{(1.5)}$	$\begin{array}{c} 0.7 \\ 0 \\ \hline 0.7 \end{array}$	12.1 12.5 24.6	$\begin{array}{c} 0.4 \\ \underline{3.6} \\ 4.0 \end{array}$	29.5 25.7 55.2

Table SE 2.

NORTHERN DISTRICT KING SALMON RUNS (In Thousands of Fish) continued

<u>Year</u>	4 1	Cinder River	Port Heiden	Three Hills & Ilnik	Bear River	Herendeen- Moller Bay	Nelson Lagoon	Caribou Flats & Black Hills	Northern District Totals
1984	Catch Escapement Total	0 0.4 0.4	6.4 7.4 13.8	$\frac{1.3}{0}$	$\frac{6.0}{0.6}$	0.6 0 0.6	7.8 6.3 14.1	$\frac{0.8}{3.0}$	$\frac{22.9}{17.7}$ $\frac{40.6}{40.6}$
1985	Catch Escapement Total	0 0.7 0.7	4.4 4.7 9.1	$\frac{1.7}{0}$	4.8 1.2 6.0	$\frac{1.8}{0}$	$\frac{10.9}{3.2}$ $\frac{14.1}{14.1}$	$\frac{0}{3.2}$	23.6 13.0 36.6
1986	Catch Escapement Total	0 $\frac{1.7}{1.7}$	1.8 2.4 4.2	$\frac{1.5}{0}$	2.9 0.8 3.7	$\begin{array}{c} 0.4 \\ 0 \\ \hline 0.4 \end{array}$	4.8 1.8 6.6	$\frac{0.2}{2.1}$	$\frac{11.6}{8.8}$ $\frac{20.4}{}$
1987	Catch Escapement Total	$\begin{array}{c} 0 \\ \underline{0.9} \\ \overline{0.9} \end{array}$	$\frac{3.2}{1.4}$	$\begin{array}{c} 0.9 \\ \hline 0.9 \\ \hline 0.9 \end{array}$	$\frac{3.8}{0.7}$ $\frac{4.5}{4.5}$	$\begin{array}{c} 0.3 \\ 0 \\ \hline 0.3 \end{array}$	5.8 4.1 9.9	$\frac{0.1}{3.6}$	14.1 10.7 24.8

Figures in parenthesis are very rough extrapolated estimates. Escapements are indexed totals.

Table SE 3.

NORTHWESTERN DISTRICT SOCKEYE SALMON RUNS (In Thousands of Fish)

<u>Year</u>	• ·	Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1962	Catch Escapement Total	4.7 27.0 31.7	$\frac{4.1}{(24.0)}$	8.8 (51.0) (59.8)
1963	Catch	1.7	5.2	6.9
	Escapement	40.0	14.0	<u>54.0</u>
	Total	41.7	19.2	60.9
1964	Catch	4.7	10.3	15.0
	Escapement	50.0	(20.0)	70.0
	Total	54.7	30.3	85.0
1965	Catch Escapement Total	0.4 7.0 7.4	$ \begin{array}{r} 14.1 \\ 6.9 \\ 2\overline{1.0} \end{array} $	14.5 13.9 28.4
1966	Catch	0	16.3	16.3
	Escapement	7.5	12.4	19.9
	Total	7.5	28.7	36.2
1967	Catch	8.1	5.3	13.4
	Escapement	9.0	5.8	14.8
	Total	17.1	11.1	28.2
1968	Catch	11.1	4.6	15.7
	Escapement	10.0	7.8	17.8
	Total	21.1	12.4	33.5
1969	Catch	6.1	3.5	9.6
	Escapement	14.0	39.5	53.5
	Total	20.1	43.0	63.1
1970	Catch	3.1	0.7	3.8
	Escapement	7.0	(35.0)	(42.0)
	Total	10.1	(35.7)	(45.8)
1971	Catch	6.9	2.4	9.3
	Escapement	4.0	30.0	34.0
	Total	10.9	32.4	43.3
1972	Catch	0.8	6.2	7.0
	Escapement	5.0	4.8	9.8
	Total	5.8	11.0	16.8

Table SE 3.

NORTHWESTERN DISTRICT SOCKEYE SALMON RUNS (In Thousands of Fish) continued

<u>Year</u>	4 °	Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1973	Catch Escapement Total	$\frac{1.2}{2.0}$	2.6 5.0 7.6	3.8 7.0 10.8
1974	Catch Escapement Total	4.7 4.0 8.7	$\frac{3.6}{3.3}$ $\frac{6.9}{6.9}$	8.3 7.3 15.6
1975	Catch Escapement Total	1.5 7.0 8.5	$\frac{1.5}{12.3}$ $\frac{13.8}{13.8}$	3.0 19.3 22.3
1976	Catch Escapement Total	$\begin{array}{c} 19.0 \\ \underline{14.0} \\ 33.0 \end{array}$	1.7 21.5 23.2	20.7 35.5 56.2
1977	Catch	3.1	31.5	34.6
	Escapement	26.5	28.6	55.1
	Total	29.6	60.1	89.7
1978	Catch	15.6	24.5	40.1
	Escapement	17.0	28.0	45.0
	Total	32.6	52.5	85.1
1979	Catch	10.8	63.1	73.9
	Escapement	9.0	33.7	42.7
	Total	19.8	96.8	116.6
1980	Catch	34.2	15.2	49.4
	Escapement	11.5	90.1	101.6
	Total	45.7	105.3	151.0
1981	Catch	30.9	20.1	51.0
	Escapement	12.0	60.7	72.7
	Total	42.9	80.8	123.7
1982	Catch	24.5	9.3	33.8
	Escapement	21.5	29.3	50.8
	Total	46.0	38.6	84.6
1983	Catch Escapement Total	15.2 18.5 33.7	$\begin{array}{r} 14.3 \\ \underline{14.2} \\ 28.5 \end{array}$	29.5 32.7 62.2

Table SE 3.

NORTHWESTERN DISTRICT RED SALMON RUNS (In Thousands of Fish) continued

Year		Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1984 .	Catch Escapement Total	4.7 19.1 23.8	197.0 70.3 267.3	$\begin{array}{r} 201.7 \\ \underline{89.4} \\ 291.1 \end{array}$
1985	Catch Escapement Total	6.2 17.2 23.4	$\frac{77.4}{29.5}$	$ \begin{array}{r} 83.6 \\ 46.7 \\ \hline 130.3 \end{array} $
1986	Catch Escapement Total	19.1 15.7 34.8	139.2 45.7 184.9	$ \begin{array}{r} 158.3 \\ \underline{61.4} \\ \hline 219.7 \end{array} $
1987	Catch Escapement Total	$\begin{array}{c} 6.5 \\ \underline{13.6} \\ 20.1 \end{array}$	$\begin{array}{r} 137.9 \\ \underline{36.3} \\ 174.2 \end{array}$	144.4 49.9 194.3

Figures in parenthesis are extrapolated estimates. Escapements are indexed totals.

Table SE 4.

NORTHERN DISTRICT SOCKEYE SALMON RUNS (In Thousands of Fish)

							*		
Year	4 1	Cinder River	Port <u>Heiden</u>	Three Hills & Ilnik	Bear River	Herendeen- Moller Bay	Nelson Lagoon	Caribou Flats & Black Hills	Norther Distric Totals
1962	Catch Escapement Total	0.9 5.0 5.9	17.8 (19.0) (36.8)	9.7 5.9 15.6	142.9 215.0 357.9	$0\\0.1\\0.1$	69.6 54.2 123.8	$0\\\frac{1.0}{1.0}$	240.9 300.2 541.1
1963	Catch Escapement Total	0 $\frac{1.4}{1.4}$	0 (14.2) (14.2)	26.6 10.4 37.0	120.0 238.6 358.6	$0\\0.1\\0.1$	$\begin{array}{c} 71.5 \\ 31.0 \\ \hline 102.5 \end{array}$	$0 \\ (1.3) \\ (1.3)$	218.1 297.0 515.1
1964	Catch Escapement Total	0 $\frac{1.5}{1.5}$	6.3 10.0 16.3	33.3 (6.5) (39.8)	107.5 250.2 357.7	$0\\0.2\\0.2$	88.7 80.0 168.7	$\begin{array}{c} 0 \\ 1.5 \\ 1.5 \end{array}$	235.8 349.9 585.7
1965	Catch Escapement Total	0 7.5 7.5	9.7 30.0 39.7	58.4 (12.5) 70.9	62.4 137.0 199.4	$\begin{array}{c} 0.1 \\ 0 \\ \hline 0.1 \end{array}$	53.8 37.0 90.8	0 0.5 0.5	184.4 224.5 408.9
1966	Catch Escapement Total	$\begin{array}{c} 0\\ 3.0\\ \overline{3.0} \end{array}$	8.0 (11.7) (19.7)	11.0 24.3 35.3	152.6 185.0 337.6	0 0.6 0.6	60.0 36.5 96.5	$0 \\ \frac{2.3}{2.3}$	231.6 263.4 495.0
1967	Catch Escapement Total	0 (3.8) (3.8)	3.1 (12.0) (15.1)	0 $\frac{26.4}{26.4}$	156.1 200.0 356.1	$\begin{array}{c} 12.5 \\ \underline{0.2} \\ 12.7 \end{array}$	40.2 42.0 82.2	$ \begin{array}{c} 0 \\ (0.5) \\ \hline (0.5) \end{array} $	211.9 284.9 496.8
1968	Catch Escapement Total	0 $\frac{4.1}{4.1}$	0 (15.0) (15.0)	78.6 (15.0) (93.6)	90.5 166.0 256.5	3.4 0.4 3.8	$\frac{51.1}{31.0}$ $\frac{82.1}{82.1}$	0 (2.0) (2.0)	223.6 233.5 457.1
1969	Catch Escapement Total	$\frac{0}{(3.8)}$	5.2 (15.0) (20.2)	24.0 (15.6) (39.6)	205.5 406.0 611.5	4.4 0.1 4.5	72.8 78.5 151.3	0 (2.5) (2.5)	311.9 521.5 833.4
1970	Catch Escapement Total	0 $\frac{1.5}{1.5}$	0 $\frac{14.1}{14.1}$	44.8 16.1 60.9	110.0- 294.0 404.0	$\begin{array}{c} 1.7 \\ \underline{0} \\ 1.7 \end{array}$	52.7 82.4 135.1	0 $\frac{1.4}{1.4}$	209.2 409.5 618.7
1971	Catch Escapement Total	$\begin{array}{c} 0 \\ \underline{2.0} \\ 2.0 \end{array}$	$\frac{0}{30.8}$	57.1 26.5 83.6	238.6 281.0 519.6	$\frac{1.7}{0.2}$	47.5 60.1 107.6	0 0.5 0.5	344.9 401.1 746.0
1972	Catch Escapement Total	0 0.4 0.4	0 $\frac{3.5}{3.5}$	$\frac{12.0}{13.1}$ $\frac{25.1}{2}$	136.2 135.4 271.6	$\begin{array}{c} 1.1 \\ 0 \\ \overline{1.1} \end{array}$	23.2 28.0 51.2	$\frac{0}{0}$	172.5 180.4 352.9

Table SE 4.

NORTHERN DISTRICT SOCKEYE SALMON RUNS (In Thousands of Fish) continued

<u>Year</u>	w 1	Cinder <u>River</u>	Port Heiden	Three Hills & Ilnik	Bear River	Herendeen- Moller Bay	Nelson Lagoon	Caribou Flats & Black Hills	Norther Districe Total:
1973	Catch Escapement Total	0 $\frac{1.2}{1.2}$	1.5 7.2 8.7	21.5 16.0 37.5	117.3 130.1 247.4	$\frac{4.2}{0}$	23.9 18.7 42.6	0 0 0	168.4 173.2 341.6
1974	Catch Escapement Total	0 $\frac{1.3}{1.3}$	2.5 1.4 3.9	47.0 14.6 61.6	140.9 266.5 407.4	7.7 0 7.7	25.2 39.9 65.1	0 1.8 1.8	223.3 325.5 548.8
± 1975	Catch Escapement Total	0 0.9 0.9	$0.6 \\ \frac{5.1}{5.7}$	8.7 40.8 49.5	$\frac{166.0}{310.0}$ $\frac{310.0}{476.0}$	$\frac{3.7}{0.1}$	51.5 138.6 190.1	$\frac{0}{2.0}$	230.5 497.5 728.0
1976	Catch Escapement Total	0 $\frac{6.3}{6.3}$	5.0 30.3 35.3	219.7 15.7 235.4	310.9 328.0 638.9	9.9 0.5 10.4	74.9 108.9 183.8	0 7.4 7.4	620.4 497.1 1,117.5
1977	Catch Escapement Total	$\frac{0}{3.9}$	3.4 23.6 27.0	97.0 20.7 117.7	268.7 265.2 533.9	11.0 13.5 24.5	56.4 155.0 211.4	0 $\frac{4.1}{4.1}$	436.5 486.0 922.5
1978	Catch Escapement Total	$\frac{0}{3.8}$	$0.8 \\ 18.8 \\ 19.6$	$\frac{32.2}{21.2}$ $\frac{53.4}{}$	556.4 814.0 1370.4	53.7 4.9 58.6	213.4 304.3 517.7	0 1.5 1.5	$\begin{array}{c} 856.5 \\ \underline{1,168.5} \\ 2,025.0 \end{array}$
1979	Catch Escapement Total	$\frac{0.1}{6.0}$	36.9 (46.7) 83.6	194.4 97.5 291.9	1320.9 1013.0 2333.9	$\frac{32.1}{5.0}$	320.9 360.1 681.0	0 3.0 3.0	1,905.3 1,531.3 3,436.6
1980	Catch Escapement Total	0 30.0 30.0	24.6 (47.0)((71.6)(741.9 751.0 1492.9	$\frac{10.5}{12.0}$	318.5 352.6 671.1	0 3.9 3.9	1,347.7 1,286.0 2,633.7
1981	Catch Escapement Total	0 100.0 100.0	3.8 (26.6)((30.4)(1327.8 741.5 2069.3	18.6 0.6 19.2	374.7 251.0 625.7	(4.0) (4.0)	1,793.8 1,274.7 3,068.5
1982	Catch Escapement Total	$0 \ (13.0) \ (13.0)$	(62.0)	142.5 (43.0) 185.5	1009.3 361.3 1370.6	$\frac{11.3}{0.5}$	229.2 179.6 408.8	$\begin{array}{c} 0.4 \\ \underline{6.0} \\ \overline{6.4} \end{array}$	1,401.5 665.4 2,066.9

Table SE 4.

MORTHERN DISTRICT SOCKEYE SALMON RUNS (In Thousands of Fish) continued

Year	A 1	Cinder <u>River</u>	Hi Port	nree 11s & Bear nik River	Herendeen- Moller Bay	Nelson Lagoon	Caribou Flats & Black Hills	Norther Distric Totals
1983	Catch Escapement Total	$0.1 \\ 9.0 \\ \overline{9.1}$	0.1 729 8.6 40 8.7 769	358.0	15.0 0.5 15.5	192.9 128.8 321.7	0 2.6 2.6	2,063.9 547.6 2,611.5
1984	Catch Escapement Total	$\begin{array}{c} 0\\\underline{16.0}\\16.0\end{array}$	$\begin{array}{ccc} 1.7 & 743 \\ \underline{31.1} & 22 \\ \overline{32.8} & 766 \end{array}$	2.3 414.0	$ \begin{array}{r} 31.4 \\ 0.7 \\ \hline 32.1 \end{array} $	118.8 251.0 369.8	$0\\\frac{0.6}{0.6}$	1,533.0 735.7 2,268.7
±1985	Catch Escapement Total	0.3 12.6 12.9	5.1 978 45.5 22 50.6 1000	2.7 451.5	4.5 0.7 5.2	706.3 314.8 1021.1	$\frac{0}{3.7}$	2,516.9 851.5 3,368.4
1986	Catch Escapement Total	0.7 25.7 26.4	38.0 1148 26.4 66 64.4 1215	279.4	1.3 0.3 1.6	178.4 117.9 296.3	0 2.3 2.3	2,305.4 518.9 2,824.3
1987	Catch Escapement Total	0.2 15.3 15.5	2.3 719 28.3 30 30.6 750	266.7	0.7 0.7 1.4	128.5 155.7 284.2	0.1 8.7 8.8	1,065.1 506.1 1,571.2

Figures in parenthesis are extrapolated estimates. Except for Bear and Nelson Rivers where weir and tower counts are used, escapements are indexed totals.

Table SE 5.

1979-87 NORTH PENINSULA COHO SALMON CATCHES BY DISTRICT AND SECTION (Numbers of fish in thousands)

SECTION	1979	1980	1981	1982	1983	1984	1985	1986	1987
Dublin Bay Urilia Bay Bechevin Bay Izenbek-	0.0 6.5 0.0	0.0 0.0 .1	0.0 .5 0.0	0.0 0.0 .1	0.0 .7 .7	0.0 12.7 .4	0.0 26.2 1.4	0.0 25.3 0.0	0.0 15.9 0.8
Moffet Bay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
Northwestern District Total	6.5	.1	.5	.1	1.4	13.1	27.6	25.3	19.6
Black Hills Caribou Flats Nelson Lagoon HerenMoller Bear River Three Hills Ilnik Port Heiden Cinder River	0.0 0.0 80.0 B1 1.9 .1 0.0 16.2 8.0	0.0 0.0 80.3 .1 4.9 0.0 .4 13.3 28.6	0.0 0.0 133.5 .1 4.6 0.0 0.0 3.8 12.9	0.0 0.0 170.7 .4 11.6 .2 13.1 18.7 23.4	0.0 0.0 64.0 .4 4.2 0.0 2.7 1.7	0.0 0.0 113.3 0.7 10.6 3.0 6.2 21.6 30.0	0.0 0.0 88.2 .5 15.0 1.4 6.2 15.4 13.5	0.0 0.0 99.3 0.0 11.3 1.9 5.4 19.4 1.5	0.0 0.0 83.7 0.0 5.0 2.1 21.3 27.5 12.6
Northern District Total	106.3	127.6	154.9	238.1	73.7	185.4	140.2	138.8	152.2
NORTH PENINSUL TOTAL	A 112.8	127.7	155.4	238.2	75.1	198.5	167.8	164.1	171.8

Table SE 6.

NORTHWESTERN DISTRICT PINK SALMON RUNS (In Thousands of Fish)

Year		Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1962	Catch Escapement Total	0 <u>0</u> 0	30.8 4.0 34.8	30.8 4.0 34.8
1963	Catch Escapement Total	0 0 0	6.0 4.4 10.4	6.0 4.4 1 0.4
1964	Catch Escapement Total	$0.1 \\ 0.1 \\ 0.1$	6.7 (15.0) (21.7)	6.8 (15.0) (21.8)
1965	Catch Escapement Total	0 <u>0</u> 0	2.0 0.9 2.9	2.0 0.9 2.9
1966	Catch Escapement Total	$0\\0.4\\0.4$	$ \begin{array}{c} 16.0 \\ \underline{1.3} \\ 17.3 \end{array} $	16.0 1.7 17.7
1967	Catch Escapement Total	0 0.2 0.2	0.3 0.5 0.8	$\begin{array}{c} 0.3 \\ \underline{0.7} \\ 1.0 \end{array}$
1968	Catch Escapement Total	0 $\frac{1.5}{1.5}$	0 25.0 25.0	0 26.5 26.5
1969	Catch Escapement Total	0 2.3 2.3	$\frac{0}{2.1}$	0 $\frac{4.4}{4.4}$
1970	Catch Escapement Total	0 <u>0</u> 0	7.8 11.1 18.9	7.8 11.1 18.9
1971	Catch Escapement Total	$0\\0.1\\0.1$	$\frac{0.3}{8.4}$	0.3 8.5 8.8
1972	Catch Escapement Total	0 <u>0</u> 0	$\frac{0}{1.2}$	$\frac{0}{1.2}$

Table SE 6.

NORTHWESTERN DISTRICT PINK SALMON RUNS (In Thousands of Fish) continued

Year,		Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1973	Catch Escapement Total	0 <u>0</u> 0	$\frac{0}{(0.2)}$	$\frac{0}{(0.2)}$
1974	Catch Escapement Total	0 <u>0</u> 0	10.3 (23.0) (33.3)	10.3 (23.0) (33.3)
1975	Catch Escapement Total	$0\\0.1\\0.1$	0 0.5 0.5	0 0.6 0.6
1976	Catch Escapement Total	$0 \\ 0.1 \\ \overline{0.1}$	0 $\frac{37.2}{37.2}$	0 $\frac{37.3}{37.3}$
1977	Catch Escapement Total	0 0.2 0.2	$\begin{array}{c} 0 \\ \underline{6.2} \\ 6.2 \end{array}$	$\begin{array}{c} 0 \\ \underline{6.4} \\ \overline{6.4} \end{array}$
1978	Catch Escapement Total	$\begin{array}{c} 2.2 \\ \underline{0} \\ 2.2 \end{array}$	465.6 90.4 556.0	467.8 90.4 558.2
1979	Catch Escapement Total	0 0 0	1.6 9.3 10.9	1.6 9.3 10.9
1980	Catch Escapement Total	0 0 0	297.9 94.0 391.9	297.9 94.0 391.9
1981	Catch Escapement Total	0 <u>0</u> 0	9.1 5.7 14.8	9.1 5.7 14.8
1982	Catch Escapement Total	0 0.2 0.2	5.1 51.5 56.6	5.1 51.7 56.8

Table SE 6.

MCRTHWESTERN DISTRICT PINK SALMON RUNS (In Thousands of Fish) continued

<u>Year</u>		Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1983	Catch Escapement Total	0 <u>0</u> 0	*1.3 3.9 5.2	1.3 3.9 5.2
1984	Catch Escapement Total	$ \begin{array}{c} 0.1 \\ 0.0 \\ 0.1 \end{array} $	9.7 33.0 42.7	9.8 33.0 42.8
1985	Catch Escapement Total	0 <u>0</u> 0	$\frac{2.0}{1.4}$	2.0 1.4 3.4
1986	Catch Escapement Total	0 <u>0</u> 0	9.9 12.9 22.8	9.9 12.9 22.8
1987	Catch Escapement Total	0 <u>0</u> 0	$\frac{0.8}{1.1}$	0.8 <u>1.1</u> 1.9

Figures in parenthesis are extrapolated estimates. Escapements are indexed totals.

Table SE 7.

NORTHWESTERN DISTRICT CHUM SALMON RUNS (In Thousands of Fish)

<u>Year</u>	n 1	Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1962	Catch	6.2	8.5	14.7
	Escapement	68.0	48.5	116.5
	Total	74.2	57.0	131.2
1963	Catch	3.2	41.3	44.5
	Escapement	133.5	22.3	155.8
	Total	136.7	63.6	200.3
1964	Catch	60.2	25.7	85.9
	Escapement	95.5	(16.0)	111.5
	Total	155.7	41.7	197.4
1965	Catch	4.7	44.6	49.3
	Escapement	24.0	(1.8)	25.8
	Total	28.7	46.4	75.1
1966	Catch	8.9	47.2	56.1
	Escapement	<u>54.0</u>	10.0	64.0
	Total	62.9	57.2	120.1
1967	Catch	9.9	8.9	18.8
	Escapement	32.8	15.4	48.2
	Total	42.7	24.3	67.0
1968	Catch Escapement Total	48.8 142.7 191.5	0.2 19.8 20.0	$\begin{array}{r} 49.0 \\ \underline{162.5} \\ 211.5 \end{array}$
1969	Catch Escapement Total	4.5 95.3 99.8	$\frac{1.4}{8.0}$	5.9 103.3 109.2
1970	Catch	10.0	2.5	12.5
	Escapement	58.1	(5.6)	63.7
	Total	68.1	8.1	76.2
1971	Catch	36.3	7.5	43.8
	Escapement	<u>54.1</u>	5.9	60.0
	Total	90.4	13.4	103.8
1972	Catch	57.9	1.5	59.4
	Escapement	65.8	11.2	77.0
	Total	123.7	12.7	136.4

Table SE 7.

NORTHWESTERN DISTRICT CHUM SALMON RUNS (In Thousands of Fish) continued

Year	4 °	Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1973	Catch	96.6	6.5	103.1
	Escapement	68.1	(7.5)	75.6
	Total	164.7	(14.0)	178.7
1974	Catch Escapement Total	$\frac{11.2}{\frac{76.0}{87.2}}$	$\frac{3.0}{(6.1)}$	$\frac{14.2}{82.1}$ $\frac{96.3}{}$
1975	Catch	3.4	0.5	3.9
	Escapement	74.3	17.3	91.6
	Total	77.7	17.8	95.5
1976	Catch Escapement Total	$ \begin{array}{r} 38.1 \\ \underline{127.7} \\ \overline{165.8} \end{array} $	7.9 38.3 46.2	46.0 166.0 212.0
1977	Catch	20.3	22.6	42.9
	Escapement	381.4	<u>54.3</u>	435.7
	Total	401.7	76.9	478.6
1978	Catch	82.3	48.4	130.7
	Escapement	134.1	29.5	163.6
	Total	216.4	77.9	294.3
1979	Catch	17.8	12.5	30.3
	Escapement	178.0	12.4	190.4
	Total	195.8	24.9	220.7
1980	Catch Escapement Total	282.5 364.2 646.7	$ \begin{array}{c} 85.0 \\ 41.1 \\ 126.1 \end{array} $	367.5 405.3 772.8
1981	Catch	296.4	59.1	355.5
	Escapement	235.0	29.6	264.6
	Total	531.4	88.7	620.1
1982	Catch Escapement Total	57.5 166.4 223.9	$\frac{37.7}{23.8}$ $\frac{61.5}{61.5}$	95.2 190.2 285.4

Table SE 7.

MORTHWESTERN DISTRICT CHUM SALMON RUNS (In Thousands of Fish) continued

<u>Year</u>	n i	Izembek- Moffet Bay	Bechevin & Urilia Bays	Northwestern District Totals
1983	Catch	154.8	14.9	169.7
	Escapement	173.3	20.2	193.5
	Total	328.1	35.1	363.2
1984	Catch	102.7	79.8	182.5
	Escapement	427.5	33.4	460.9
	Total	530.2	113.2	643.4
1985	Catch	126.6	116.5	243.1
	Escapement	194.7	25.7	220.4
	Total	321.3	142.2	463.5
1986	Catch	69.1	44.5	113.6
	Escapement	142.4	23.3	165.7
	Total	211.5	67.8	279.3
1987	Catch Escapement Total	148.6 286.0 434.6	$\begin{array}{c} 64.6 \\ \underline{55.5} \\ 120.1 \end{array}$	213.2 341.2 554.7

Figures in parenthesis are extrapolated estimates. Escapements are indexed totals.

Table SE 8.

NORTHERN DISTRICT CHUM SALMON RUNS (In Thousands of Fish)

<u>Year</u>	4.1	Cinder River	Port <u>Heiden</u>	Three Hills & Ilnik	Bear River	Herendeen- Moller Bay	Nelson Lagoon	Caribou Flats & Black Hills	Norther Distric Totals
1962	Catch Escapement Total	0.2 0.5 0.7	$\frac{8.6}{(1.9)}$ (10.5)	0.6 (1.5) (2.1)	7.0 1.5 8.5	0 $\frac{18.3}{18.3}$	$\frac{3.7}{9.7}$ $\frac{13.4}{1}$	$0 \\ \frac{(1.0)}{(1.0)}$	20.1 34.4 54.5
1963	Catch Escapement Total	0 $\frac{1.2}{1.2}$	$\frac{0}{(7.4)}$	0.7 (1.5) (2.2)	0.6 (3.0) (3.6)	$\begin{array}{c} 0 \\ \underline{26.0} \\ 26.0 \end{array}$	$\frac{4.1}{7.0}$ $\frac{11.1}{1}$	$\frac{0}{(1.3)}$	5.4 47.4 52.8
1964	Catch Escapement Total	0 0.2 0.2	0 $\frac{1.0}{1.0}$	2.3 (1.5) (3.8)	6.5 3.0 9.5	39.8 35.9 75.7	3.4 2.0 5.4	$\frac{0}{(1.0)}$	52.0 44.6 96.6
1965	Catch Escapement Total	0 <u>0</u> 0	0.8 8.5 9.3	2.3 (1.5) (3.8)	1.5 1.0 2.5	13.6 8.0 21.6	$\frac{2.2}{4.0}$	$0 \\ (0.5) \\ \hline (0.5)$	20.4 23.5 23.9
1966	Catch Escapement Total	0 $\frac{4.4}{4.4}$	$\frac{0}{(3.4)}$	0.3 (1.5) (1.8)	$\frac{3.7}{1.0}$	17.9 56.2 74.1	4.8 17.0 21.8	$\begin{array}{c} 0 \\ \underline{2.0} \\ 2.0 \end{array}$	26.7 85.5 112.2
1967	Catch Escapement Total	$\frac{0}{2.5}$	$\begin{array}{c} 0 \\ 3.0 \\ \hline 3.0 \end{array}$	0 9.6 9.6	$\frac{13.6}{2.5}$ $\frac{16.1}{1}$	2.4 25.0 27.4	5.1 29.8 34.9	$\frac{0}{(2.0)}$	21.1 74.4 95.5
1968	Catch Escapement Total	0 <u>0</u> 0	0 (11.0) (11.0)	$\begin{array}{c} 3.1 \\ 0 \\ \hline 3.1 \end{array}$	7.5 9.5 17.0	10.5 47.7 58.2	3.5 18.1 21.6	$\frac{0}{2.0}$	24.6 88.3 112.9
1969	Catch Escapement Total	$\frac{0}{2.5}$	1.2 (11.0) (12.2)	1.3 (1.5) (2.8)	$\frac{10.3}{11.3}$	7.8 14.0 21.8	3.5 13.0 16.5	0 0.5 0.5	24.1 43.5 67.6
1970	Catch Escapement Total	0 $\frac{1.3}{1.3}$	0 22.0 22.0	3.2 0.5 3.7	14.6- 2.0 16.6	12.2 42.8 55.0	1.5 36.0 37.5	0 (1.5) (1.5)	31.5 106.1 137.6
1971	Catch Escapement Total	0 2.5 2.5	0 $\frac{12.1}{12.1}$	$\frac{2.5}{0.8}$ $\frac{3.3}{3.3}$	$\begin{array}{c} 12.9 \\ 0 \\ \hline 12.9 \end{array}$	1.2 14.5 15.7	$\frac{3.8}{19.0}$ $\frac{22.8}{2}$	0 (0.5) (0.5)	20.4 49.4 69.8

Table SE 8.

NORTHERN DISTRICT CHUM SALMON RUNS (In Thousands of Fish) continued

				energy.	Three Hills				Caribou Flats	North
	Year	4	Cinder <u>River</u>	Port <u>Heiden</u>	& Ilnik	Bear <u>River</u>	Herendeen- Moller Bay	Nelson Lagoon	Black Hills	Distr Tota
	1972	Catch Escapement Total	0 <u>5.3</u> 5.3	0 12.2 12.2	$0.8 \\ 0.5 \\ 1.3$	$\frac{14.0}{3.7}$ $\frac{17.7}{17.7}$	7.3 8.0 15.3	$\frac{3.2}{16.8}$ $\frac{20.0}{16.8}$	0 (0.5) (0.5)	25. <u>47.</u> 72.
	1973	Catch Escapement Total	0 0.6 0.6	$\frac{2.5}{22.8}$ $\frac{25.3}{25.3}$	$\frac{0.9}{0.8}$	$\frac{34.2}{0.8}$ $\frac{35.0}{35.0}$	13.2 3.7 16.9	1.8 12.7 14.5	0 0 0	52. 46. 99.
4	1974	Catch Escapement Total	0 $\frac{4.6}{4.6}$	$\frac{1.0}{4.5}$	$\begin{array}{c} 1.3 \\ 0 \\ \hline 1.3 \end{array}$	$\frac{11.4}{1.5}$ $\frac{1}{12.9}$	3.2 3.7 6.9	$0.5 \\ 8.3 \\ 8.8$	$0\\\frac{0.4}{0.4}$	17. 23. 40.
	1975	Catch Escapement Total	0 $\frac{0.3}{0.3}$	0 $\frac{1.5}{1.5}$	$\frac{0.1}{2.0}$	3.8 2.0 5.8	0.2 7.3 7.5	$0.7 \\ \underline{4.5} \\ \underline{5.2}$	0 <u>0</u> 0	4.1 17.1 22.4
	1976	Catch Escapement Total	0 1.9 1.9	$\frac{1.1}{30.7}$	$\frac{2.9}{5.7}$	$\frac{12.3}{18.0}$ $\frac{30.3}{30.3}$	5.5 28.5 34.0	5.8 42.5 48.3	$0\\0.1\\0.1$	27.0 127.4 155.0
	1977	Catch Escapement Total	0 (1.7) (1.7)	0 32.0 32.0	7.1 (1.5) (8.6)	$\frac{32.3}{17.0}$ $\frac{49.3}{49.3}$	34.8 108.5 143.3	10.7 83.3 94.0	0 $\frac{1.5}{1.5}$	84.9 245.8 330.4
	1978	Catch Escapement Total	0 $\frac{7.4}{7.4}$	0 22.0 22.0	$\frac{1.2}{(1.5)}$	$\begin{array}{c} 14.6 \\ (15.5) \\ \hline (30.1) \end{array}$	6.6 89.3 95.9	10.3 10.2 20.5	0 (1.0) (1.0)	32.7 146.9 179.6
	1979	Catch Escapement Total	$\frac{0}{(3.6)}$	0.8 (32.7) (33.5)	$\begin{array}{c} 0.7 \\ \underline{0} \\ 0.7 \end{array}$	17.4 7.0 24.4	10.9 30.6 41.5	5.7 37.0 42.7	0 4.0 4.0	35.5 114.9 150.4
	1980	Catch Escapement Total	0 (10.0) (10.0)	2.6 (33.7) (36.3)	(10.0)	$161.7 \\ 20.0 \\ 181.7$	59.6 116.1 175.7	$80.1 \\ \underline{164.0} \\ \underline{244.1}$	0 $\frac{10.4}{10.4}$	333.7 364.2 697.9
	1981	Catch Escapement Total	0 (11.8) (11.8)		7.1 (11.0) (18.1)	155.0 27.2 182.2	126.2 85.0 211.2	62.8 57.0 119.8	$0 \ (11.0) \ (11.0)$	351.3 276.4 627.7
	1982	Catch Escapement Total	0 (5.5) (5.5)	0.7 (35.5) (36.2)	21.2 $\frac{1.0}{22.2}$	142.4 42.4 184.8	50.2 152.0 202.2	21.4 29.1 50.5	$\frac{0.1}{(2.0)}$	236.0 267.5 503.5

Table SE 8.

NORTHERN DISTRICT CHUM SALMON RUNS (In Thousands of Fish) continued

<u>Year</u>	4.1	Cinder <u>River</u>	Port Heiden	Three Hills & Ilnik	Bear River	Herendeen- Moller Bay	Nelson Lagoon	Caribou Flats & Black Hills	Northern District Totals
1983	Catch Escapement Total	0 $\frac{17.2}{17.2}$	0 14.5 14.5	$\frac{26.1}{11.2}$ $\frac{37.3}{37.3}$	87.7 (15.0) (102.7)	51.3 126.0 177.3	14.0 14.0 28.0	$0 \\ \frac{1.2}{1.2}$	179.1 199.1 378.2
1984	Catch Escapement Total	0 $\frac{13.0}{13.0}$	0.2 85.0 85.2	$\frac{174.2}{4.0} \\ \frac{178.2}{178.2}$	242.3 7.0 249.3	119.2 241.3 360.5	78.4 49.0 127.4	0 10.0 10.0	614.3 409.3 1,023.6
1985	Catch Escapement Total	$\frac{0}{3.2}$	0 $\frac{26.5}{26.5}$	$\frac{86.6}{0.2}$	68.3 5.2 73.5	$\begin{array}{c} 266.4 \\ \hline 71.7 \\ \hline 338.1 \end{array}$	6.6 13.0 19.6	0 $\frac{4.1}{4.1}$	427.9 123.9 551.8
1986	Catch Escapement Total	$\frac{0.1}{2.2}$	0.8 12.0 12.8	$\frac{38.7}{0.0}$	86.7 6.4 $\overline{93.1}$	27.8 55.8 83.6	3.6 0.8 4.4	0 0.7 0.7	157.7 77.9 235.6
1987	Catch Escapement Total	0 $\frac{12.4}{12.4}$	1.0 55.4 56.4	$\frac{48.0}{0.1}$ $\frac{48.1}{48.1}$	85.5 5.0 90.5	$\begin{array}{r} 14.2 \\ 88.6 \\ \hline 102.8 \end{array}$	6.7 5.2 11.9	0 $\frac{4.7}{4.7}$	155.4 171.4 326.8

Figures in parenthesis are extrapolated estimates. Escapements are indexed totals.

Table SE 9.

NELSON LAGOON SALMON RUNS
(Fish in Thousands)

	KINGS			s0	CKEYES		CHUMS			COHC
Year	Escapement	Catch	Total	Escapement	Catch	Total	Escapement	Catch	Total	Catche
1960 1961 1962 1963 1964	0.3 2.7 4.0 8.4	5.4 3.7 3.7 2.5 3.3	4.0 6.4 6.5 11.7	48.0 138.2 54.2 31.0 80.0	93.5 76.8 69.6 71.5 88.7	141.5 215.0 123.8 102.5 168.7	15.0 10.1 9.7 7.0 2.0	16.3 1.9 3.7 4.1 3.4	31.3 12.0 13.4 11.1 5.4	31.4 20.3 30.0 33.4 30.2
1965	11.9	4.0	15.9	37.0	53.8	90.8	4.0	2.2	6.2	28.4
1966	4.7	2.4	7.1	36.5	60.0	96.5	17.0	4.8	21.8	27.6
1967	5.1	3.6	8.7	42.0	40.2	82.2	29.8	5.1	34.9	34.8
1968	7.3	2.8	10.1	31.0	51.1	82.1	18.1	3.5	21.6	55.9
1969	8.1	2.5	10.6	78.5	72.8	151.3	13.0	1.5	14.5	34.3
1970 1971 1972 1973 1974	2.9 2.3 1.4 1.5	2.6 1.4 1.3 1.5 2.1	5.5 3.7 2.7 3.0 3.2	82.4 60.1 28.0 18.7 39.9	52.7 47.5 23.2 23.9 25.2	135.1 107.6 51.2 42.6 65.1	36.0 19.0 16.8 12.7 8.3	7.7 3.8 3.2 1.8 0.5	43.7 22.8 20.0 14.5 8.8	24.7 6.9 7.3 16.6 15.8
1975	2.5	1.2	3.7	138.6	51.5	190.1	4.5	0.7	5.2	21.3
1976	3.3	2.2	5.5	108.9	74.9	183.8	42.5	5.8	48.3	19.3
1977	5.6	1.7	7.3	155.0	56.4	211.4	83.3	10.7	94.0	22.3
1978	4.2	3.4	7.6	304.3	213.4	517.7	10.2	10.3	20.5	30.9
1979	11.0	5.4	16.4	360.1	320.9	681.0	37.0	5.7	42.7	80.0
1980	5.5	8.7	14.2	352.6	318.5	671.1	164.0	80.1	244.1	80.3
1981	5.2	11.0	16.2	251.0	374.7	625.7	57.0	62.8	119.8	133.5
1982	7.0	13.5	20.5	179.6	229.2	408.8	29.1	21.4	50.5	170.7
1983	12.5	12.1	24.6	128.8	192.9	321.7	14.0	14.0	28.0	64.0
1984	6.3	7.8	14.1	251.0	118.8	369.8	49.0	78.4	127.4	113.3
1985	3.2	10.9	14.1	318.5	706.3	1024.8	13.0	6.6	19.6	88.2
1986	1.8	4.8	6.6	117.9	178.4	296.3	1.8	3.6	5.4	99.3
1987	4.1	5.8	9.9	155.7	128.5	284.2	5.2	6.7	11.9	83.7

Table SE 10.

4

DAILY NELSON LAGOON KING SALMON CATCHES 1979-87 (ALL GEAR)

					(. «2/,						
		1979		980		981		982		983		984
DATE	BTS	. FISH	BTS.		BTS.	FISH	BTS.	FISH	BTS.	FISH	BTS.	FISH
May 30 31 June 1 2 3	Ą.						5 5 10 1	151 97 159 2	1	25		
3 4 5 6 7 8 9							17 10 8	793 400 345 296	9 11 12 11	297 309 305 255	8 11 3 6	95 68 20 23
11 12 13 14 15 16	13 13 12	1,078 668 319	19 17	1,813 786	19	1,513 1,597 788 549 858	5 18 23 22	96 778 965 776	14 14 11 13	1,164 616 397 579	15 15 10 18	208 223 82 212
18 19 20 21 22 23 24 25	18 17 18 22 23 22 21 15	236 358 393 344 175 169 179	18 16 13 21 25 23	486	18 25 23 22 20 19	1,031 765 584 461 331 241	18 13 22 21 21	904 885 604 909 575 457	15 15 17 18 17	672 187 727 911 866	13 15	396 431 44
26 27 28 29 30 July 1 2	22 17 18 11 19 22 15 25	357 227 143 50 71 66 12 24	25 19 23 25 25 27 17 23	439 225 353 448 270 143 85 174	17 20 9 24 18 11 24	308 254 219 33 309 162 12 135	21 25 29 26 25	360 427 557 410 475	24 25 24 22	701 833 489 369	10 10	8 3 149 83
4 5 6 7 8 9	17 19 16 19 20 13	13 65 38 8 95 18	12 23 23 23 22 24	57 114 115 120 108 156	20 14 27 26	148 47- 89 119 138 86	28 30 26 25	253 257 258 100	23 24 23 24 22	227 369 269 191 176		1,575
10 11 12 13 14 15	21 15 16 17 11 18	27 6 9 23 19 6	6 8 9 15 15	47 37 22 129 34 45	12 22 15 15	23 58 36 19 28 5	24 26 23 23	50 99 60 50	18 21 22 20 17	78 90 53 37 13	25 29 20 27 28 22	872 685 134 585 605 304
SEASON TOTAL		5,399		8,706	10	10,981	1	3,488		12,055		7,801

100

DAILY NELSON LAGOON KING SALMON CATCHES 1979-87 (ALL GEAR) (continued)

DATE	Bts	1985 Catch		1986 Catch	Bts	1987 Catch	Bts	1988 Catch	Bts	1989 Catch
May 30 31 June 1	4.1				17	136				
2 3 4	c	42	C	20	10	94				
5 6 7 8 9	6 4 4 6	43 29 12 88	6 6 18	20 10 270	6 4	61 31				
8			10	150	1	32				
10 11 12 13 14	17 3 7 9	694 52 100 119	12 10 19 18	158 137 191 106	3 22 19	41 502 285				
15			0	70	24	1,086				
16 17 18 19 20 21	22 19 18 20 22	821 692 447 390 499	2 22 26 24 27 24	78 486 279 333 334 250	23 22	363 358				
22 23 24 25 26 27 28	19 17 29 24 21 19	427 461 520 321 427 303 317	22 25 25 25 25 26	157 330 277 291 144	24 22 21 26	672 599 189 249				
29 30			25	121	28 30	251 239				
July 1 2	31 6 28 22 16	905 230 585 324 269	32 31 27	264 183 130	27 31	128 138				
3 4 5 6 7 8 9	24 20 26	276 150 359	33 30	123 63	38	172				
9 10	18 29	58 182			34	89				
11 12	25 26	103 272			41	261				
13 14 15	12 27 28	47 99 105	31	47	27 23 25	22 18 15				

Table SE 11.

DAILY PORT HEIDEN SECTION KING SALMON CATCHES 1979-87 (ALL GEAR)

DATE		1979 . FISH	1980 BTS. FI		19 BTS.	81 FISH	BTS.	982 FISH		983 FISH	BTS.	984 FISH
May 25 26 27 28 29 30	2 10 10	14 524 288	4 5	39 96	6 11 10 7	94 218 93 85						. •
31 June 1 2 3 4	15 13 19	577 218	4 3 12	69 43 270	12 14 13 13	514 344 289 117	5 10 14 12	66 139 221 220	11 14 17	369 437 484	13	250
5 6 7 8 9	19 19 17 19	777 561 724 634	17 13	370 631	16 17	902 639	20 19 20	1,194 721 603	21 21 13 19	1,069 415 271 370	14 19 20	459 325 366
10 11 12 13 14	18 6 16 17 10	854 185 1,070 653 372	22 21 20	488 458 662	17 19	411 519	17 20 20	2,013 1,589	18 18 9	1,740 720 204	23 23 22 20	1,390 785 601 472
15 16 17 18 19	14 15	515 328	15 22 22 22	465 679 559 248	17	478	18 19	1,035	5	217	23 15	893 412
20 21 22 23 24	14 13 2	265 224 43	11 9	75 66	7 5	141 181	17 12 4 2	1,298 324 163 79	12	368 113	5 1	174 53
25 26 27 28 29 30	1 2 5 6	2 63 41 74	8 9 8	21 46 61	2 4	1 1 -					1 1 1	85 63 65 65
SEASON TOTAL	_,	9,742	!	5,349	-	6,077		10,933		6,777		6,458

The driftnet fleet moves to the Bristol Bay area during late June. Remaining effort usually consists of several setnet in front of Meshik village.

Table SE 11.

DAILY PORT HEIDEN SECTION KING SALMON CATCHES 1979-87 (ALL GEAR) (continued)

DATE	Bts	1985 Catch	Bts	1986 Catch	Bts	1987 Catch	Bts	1988 Catch	Bts	1989 Catch
May 25 26 27 28 29 30	n 1									
31 June 1 2 3 4 5 6 7 8 9			1 6 2	5 61 40	7 8 13 5	181 124 188 106				
12 13	14 13 14 14	544 457 510 338	19 16 8 3	356 181 53 18	24 29 33 6	568 643 325 61				
14 15 16 17 18 19 20 21	21 9 11 1	1,280 193 207 44	22 9 13 6	431 216 201 76	24 20	605 380				
21 22 23 24 25 26 27 28 29 30	1 1 1 1	323 153 132 149	1 1 1 1 1 1	47 20 11 10 4 12	10 4	15 5				
SEASON TOTAL		4,330		1,821	;	3,217			· · · · · · · · · · · · · · · · · · ·	

Table SE 12.

1987 NELSON LAGOON DAILY SOCKEYE SALMON CATCHES (Numbers of Fish, all Gear)

Date	<u> </u>	Permits	Catch	Date	2	<u>Permits</u>	Catch	Date	Permits	Catch
June	1	17	9	July	13	27	10,673	August 17	31	225
	2	10	21		14	23	6,682	18	3 28	194
	3	6	16		15	25	4,966	19	24	137
	4	4	18		16	26	4,806	20	31	270
					17	20	3,144			
	8	1	0		18	24	2,163	24	32	142
	9	3	117		19	23	1,847	25	33	77
	10	22	853		20	27	2,488	26	33	75
	11	19	.678		21	19 .	1,620	27	31	25
					22	26	1,623			
	15	24	2,536		23	26	1,624	31	. 34	3.
					24	24	1,563	Sept. 1	. 34	19
	17	23	1,687		25	24	1,395	2	31	23
	18	22	1,795		26	15	899	3	31	18
					27	21	780			
	22	24	5,103		28	16	454	7	31	9
	23	22	4,851		29	14	400			
	24	21	4,858		30	9	414	9	23	1
	25	26	5,357							
				August	3	23	603			
					4	13	261	SEASON TO	TAL	128,471
	29	28	8,677		5	13	512			
	30	30	8,515		6	15	_ 497			
July	1	27	3,938							
	2	31	5,055		10	18	247			
					11	20	515			
	6	38	14,100		12	23	265			
					13	14	253			
	9	34	8,375							

Table SE 13.

1987 NELSON LAGOON DAILY COHO SALMON CATCHES (Numbers of Fish, all Gear)

<u>Date</u>		<u>Permits</u>	<u>Catch</u>	Date	<u> </u>	ermits	Catch
Juły	28	16	1	September	7	31	10,640
	29	14	2				
	30 -	9	1		9	23	5,178
August	3	23	49				
	4	13	28		SEASO	N TOTAL	83,698
	5	13	82				•
	6	15	95				
	10	18	362				
	11	20	1,218				
	12	23	943				
	13	. 14	678	•			
	17	31	2,465				
	18	28	2,444				
	19	24	3,480				
	20	20	4,694				
	24	32	6,587				
	25	- 33	7,053				
	26	33	4,411				
	27	31	3,669				
	31	34	5,090				
Sept.	1	34	10,230				
	2	31	7,740				
	3	31	6,558				

Table SE 14.

1987
PORT HEIDEN SECTION
DAILY COHO SALMON CATCHES
(Numbers of Fish, all Gear)

<u>Date</u>		<u>Permits</u>	<u>Catch</u>
August	10	1	25
	11	5	149
	12	5	321
	13	7	329
	17	15	1,530
	18	13	2,336
	19	16	1,905
	20	13	1,784
	24	15	1,339
	25	6	756
	26	15	2,411
	27	14	2,538
Sept.	31	15	3,331
	1	15	3,080
	2	16	2,269
	3	9	890
	6	7	721
	7	12	791
	8	5	177
	9	6	333
	10	1	14
	18	1	492
	5	7 SEASON TOTAL	27,521

Table SE 15.

APPROXIMATE ILNIK AND OUTER PORT HEIDEN AUGUST-SEPTEMBER SALMON CATCHES BY AREA T FISHERMEN NOT PARTICIPATING IN PORT HEIDEN JUNE FISHERY.

<u>Year</u>	Boats	Sockeyes	Cohos	<u>Total</u>
1986	18	9,000	2,000	11,000
1987	17	5,000	9,000	14,000

Table SF 1.

1987
ALASKA PENINSULA - ALEUTIAN ISLANDS
SALMON CATCH BY STATISTICAL AREA, SECTION, AND DISTRICT
(Figures in Fish)

SOUTH PENINSULA

Southea	stern District						
Area	Location	Kings	Sockeyes	Cohos	Pinks	Chums	<u>Total</u>
281-35 281-33	Fox Bay & Island Bays Stepovak Flats	46 86	128,198 22,607	8,069 8,558	10,940 76,498	11,770 172,561	159,023 280,310
	ast Stepovak Section	132	150,805	16,627	87,438	184,331	439,333
281-32 281-31 281-20 283-90	Clark B./Grub Gulch Orzinski & American B Chichagof/West Cove San Diego Bay	24 Bays 8 12 107	23,449 14,463 25,322 46,195	168 21 30 4,083	14,913 452 34,455 126,110	11,532 1,832 7,790 13,093	50,086 16,776 67,609 189,588
Total W	est Stepovak Section	151	109,429	4,302	175,930	34,247	324,059
283-80	Balboa Bay Section	76	34,330	3,162	114,758	25,461	177,787
282-11 282-12 282-13 282-22 282-23	Popof,Korovin,S.Unga Zachary Bay W. Unga Is. W. Nagai Is. E. Nagai Is.	4,219 5 200 95 15	282,039 2,151 77,702 27,205 404	157,080 119 459 278 0	410,449 95,325 27,129 15,120 0	266,860 7,672 37,058 35,732 282	1,120,647 105,272 142,548 78,430 701
Total S	Shumagin Islands Sec.	4,534	389,501	157,936	548,023	347,604	1,447,598
SOUTHE	ASTERN DISTRICT TOTAL	4,893	684,065	182,027	926,149	591,643	2,388,777
South (Central District						
<u>Area</u>	Location	Kings	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
283-75	Beaver Bay Section	5	4,899	9	847	317	6,077
	Mino Creek/ Coal Bay Section	3	3,981	8	74,147	1,606	79,745

Table SF 1.

1987
ALASKA PENINSULA - ALEUTIAN ISLANDS
SALMON CATCH BY STATISTICAL AREA, SECTION, AND DISTRICT
(Figures in Fish)

South Peninsula (continued)

South C	entral District cont.						
Area	Location	Kings	Sockeyes	Cohos	Pinks	Chums	Total
283-63 283-65 283-61	East Pavlof Bay Chinaman Lagoon Long Beach	4 1 90	2,096 3 32,388	1 181 1,005	59,250 1,111 30,371	10,029 28,286 78,082	71,380 29,582 141,936
Total P	avlof Bay Section	95	34,487	1,187	90,732	116,397	242,898
283-64	Canoe Bay Section	6	741	42	57,201	80,347	138,337
SOUTH C	ENTRAL DISTRICT TOTAL	109	44,108	1,246	222,927	198,667	467,057
Southwe	estern District						,
Area	Location	<u>Kings</u>	Sockeyes	Cohos	Pinks	Chums	<u>Total</u>
283-52 283-51	Volcano Bay Dolgoi Island	0 15	677 7 , 980	141 1,200	3,111 12,423	67,450 24,550	71,379 46,168
Total \	Volcano Bay Section	15	8,657	1,341	15,534	92,000	117,547
283-42 283-33	Belkofski Bay King Cove	0	5 1,196	3 116	8,195 319	17,921 13,104	26,124 14,735
Total 8	Belkofski Bay Section	0	1,201	119	8,514	31,025	40,859
283-31	Deer Island Section	. 0	4	0	17,554	122	17,680
283-32 283-34	Outer Cold Bay Inner Cold Bay	0	335 0	1,050	0 0	0 894 	1,385 894
Total C	Cold Bay Section	0	335	1,050	0	894	2,279

Table SF 1.

284-60 Ikatan Bay Section

1987 ALASKA PENINSULA - ALEUTIAN ISLANDS SALMON CATCH BY STATISTICAL AREA, SECTION, AND DISTRICT (Figures in Fish)

South Peninsula (continued)

Total

4,798

299,306

Southwestern District cont. Area Location Kings Sockeyes Cohos Pinks Chums 283-20 Thin Point Section 0 1,182 3,403 0 213

283-12	Morzhovoi Bay Section	6	3,434	2,237	122	1,747	7,546

33,068

6,166

104,801

154,719

552

*	

SOUTHWESTERN DISTRICT TOTAL	573	169,532	41,218	47,890	230,802	490,015
	-					

Unimak Distr Area Loca		Kings	Sockeyes	Cohos	Pinks	Chums	<u>Total</u>
284-50 Bird 284-40 Cape	Island Lazaref Lutke	276 452 2,871	132,290 124,850 294,908	243 6 0	2,057 1,579 7,954	86,355 70,565 198,235	221,221 197,452 503,968

UNIMAK DISTRICT TOTAL	3,599	552,048	249	11,590	355,155	922,641

TOTAL SOUTH PENINSULA	9,174 1,449,753	224,740 1,208,556 1,376,267	4,268,490
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Table SF 1.

1987
ALASKA PENINSULA - ALEUTIAN ISLANDS
SALMON CATCH BY STATISTICAL AREA, SECTION, AND DISTRICT
(Figures in Fish)

ALEUTIAN ISLANDS AREA

<u>Unalaska District</u>						,
Area Location	Kings	Sockeyes	Cohos	Pinks	Chums	<u>Total</u>
302-22 Kashega Bay (Kashega Bay Section Total)	0	75	0	0	0	75
Unalaska District Total	0	75	0	0	0	75
TOTAL ALEUTIAN ISLANDS AREA	0	75	0	0	0	75
		NORTH PE	ININSULA			·
Northwestern District						
<u>Area</u> <u>Location</u>	Kings	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
311-32 Urilia Bay 311-52 Swanson Lagoon	5 2	104,419 31,957	7,612 8,287	0 56	44 27 , 518	112,080 67,820
Total Urilia Bay Section	7	136,376	15,899	56	27,562	179,900
311-60 Bechevin Bay Section	1	1,490	762	783	37,050	40,086
312-10 Outside Izembek 312-20 Izembek Lagoon 312-40 Moffet Bay	0 7 45	298 1,417 4,760	37 0 2,860	6 0 1	8,233 62,130 78,275	8,574 63,554 85,941
Total Izembek-Moffet Bay Section	52	6,475	2,897	7	148,638	158,069
NORTHWESTERN DISTRICT TOTAL	60	144,341	19,558	846	213,250	378,055

Table SF 1.

1987
ALASKA PENINSULA - ALEUTIAN ISLANDS
SALMON CATCH BY STATISTICAL AREA, SECTION AND DISTRICT
(Figures in Fish)

Norther	n District		, 3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Area	Location	Kings	Sockeyes	Cohos	Pinks	Chums	Total
313-10	Black Hills Section	100	62	0	0	9	171
313-30	Nelson Lagoon Sect.	5,823	128,471	83,698	45	6,659	224,696
314-20 314-12		0 321	0 679	0 5	-	•	4,601 10,639
Total H Bay Sec	derendeen-Moller ction	321	679	5	22	14,213	15,240
315-11 Sandy R	Bear River &	3,429	168,343	4,851	1,138	77,503	255,264
315-20		360	45,615	137	204	8,030	54,346
Total B	Bear River Section	3,789	213,958	4,988	1,342	85,533	309,610
316-10	Three Hills Section	530	212,435	2,080	425	18,647	234,117
316-20	Ilnik Section	343	506,916	21,317	739	29,344	558,659
317-20	Port Heiden Section	3,217	2,359	27,521	1	1,006	34,104
318-20	Cinder River Section	3	214	12,617	66	35 —	12,935
NORTHER	RN DISTRICT TOTAL	14,126	1,065,094	152,226	2,640	155,446	1,389,532
TOTAL N	NORTH PENINSULA	14,186	1,209,435	171,784	3,486	368,696	1,767,587
	ALASKA PENINSULA- AN ISLANDS AREAS	23,360	2,659,263	396,524	1,212,042	1,744,963	6,036,152

Table SF 2.

281 - STEPOVAK

<u>Week*</u>	Kings	Sockeye	Cohos	<u>Pinks</u>	Chums
24 6/07-13	10	25,860	0	0	239
25 6/14-20	16	26,175	0	1	298
26 6/21-27	19	81,599	0	8	1,571
28 7/06-11 29 7/12-18 30 7/19-25 31 7/26-8/01 32 8/02-08 33 8/09-15 34 8/16-22	13 36 3 24 48 0 0	24,049 22,666 5,512 5,366 8,029 0	4 52 86 1,286 7,163 0 697	43 541 1,611 14,221 80,104 12,572 28,075	2,418 7,819 7,878 50,853 103,506 210 20,791
36 9/05	1	867	489	43	416
37 9/06-12	5	7,413	4,864	38	8,675
38 9/13-19	0	4,569	1,600	0	669
39 9/20-26	1	1,867	603	1	142
41 10/04-10	<u>0</u>	<u>59</u>	2	0	<u>0</u> 205,485
Total	176	214,039	16,846	137,258	

283-80 & 90 RENSHAW POINT TO POINT ALIAKSIN

Wee	<u>k</u> *	Kings	Sockeye	Cohos	<u>Pinks</u>	Chums
24	6/07-13	5	11,401	0	0	81
25	6/14-20	9	10,974	0	1	92
26	6/21-17	12	32,075	0	52	622
31	7/26-8/01	129	10,160	2,121	16,085	8,599
32	8/02-08	22	9,081	1,609	76,056	20,109
33	8/09-15	0	0	0	1,845	2,495
34	8/16-22	2	1,986	1,153	146,422	4,348
36	9/05	0	605	127	18	574
37	9/06-12	4	3,062	1,673	389	1,401
38	9/13-19	0	1,089	532	0	233
39	9/20-26	<u>0</u>	92	30	0	0
Tot	als	183	80,525	7,245	240,868	38,554

Table SF 2.

282 -	SHUMAGIN	ISLANDS
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Wee	<u>k</u> *	Kings	Sockeye	Cohos	<u>Pinks</u>	Chums
24 25 26	6/07-13 6/14-20 6/21-22	399 695 52	31,734 78,667 30,166	0 0 0	158 2,289 3,193	8,942 19,951 8,171
28 29 30 31 32	7/06-11 7/12-18 7/19-25 7/26-8/01 8/02-08	1,534 1,085 326 358 69	65,303 95,845 62,558 13,854 8,377	609 21,416 58,485 53,047 17,014	16,620 30,920 85,295 92,402 153,139	40,434 61,021 134,683 39,034 27,916
34	8/16-22	. 15	784	2,289	163,707	5,887
36 37 38 39 40	9/05 9/06-12 9/13-19 9/20-26 9/27-10/03	0 0 1 0	549 1,466 8 131 59	1,953 3,011 10 71 31	147 150 3 0	550 997 5 6
Tot	als	4,534	389,501	157,936	548,023	347,604

POINT ALIAKSIN TO BLACK POINT

Wee	<u>k</u> *	Kings	Sockeye	Cohos	Pinks	Chums
24 25 26	6/07-13 6/14-20 6/21-27	4 1 0	1,224 704 2,548	0 0 0	0 0 0	19 15 27
28 29 30 31 32 33	7/06-11 7/12-18 7/19-25 7/26-8/01 8/02-08 8/09-15	1 4 0 4 3 2	1,070 4,006 381 1,198 307 282	0 0 0 9 42 10	5 413 2,058 19,522 95,941 74,617	5,145 13,345 47,920 10,493 23,947 19,659
37	9/06-12	_0	0	<u>180</u>	0	15
Tot	al	19	11,720	241	192,556	120,585

Table SF 2.

BLACK POINT TO VODAPOINI POINT (including Deer Island)

<u>Week</u> *	Kinas	Sockeye	Cohos	<u>Pinks</u>	Chums			
25 6/14-2 26 6/21-2		103 1,036	0 0	0 0	16 106			
28 7/06-1 29 7/12-1 30 7/19-2 31 7/26-8 32 8/02-0 33 8/09-1	.8 43 25 7 8/01 17 98 3	12,639 21,737 3,588 2,302 503 342	2 26 462 1,281 297 154	97 2,813 2,542 16,990 15,402 32,864	5,431 8,000 11,640 14,349 36,355 62,310			
35 8/25 36 9/05 37 9/06-1	0 0 2 <u>0</u>	0 0	24 21 198	1,265 0 0	25,929 21,300 15,793			
Total	105	42,250	2,465	71,973	201,229			
COLD BAY S	COLD BAY SECTION							
<u>Week</u> *	<u>Kings</u>	<u>Sockeye</u>	Cohos	<u>Pinks</u>	Chum			
Week* 31 7/26-8 32 8/02-0	3/01 0	<u>Sockeye</u> 0 0	Cohos 0 0	Pinks 0 0	<u>Chum</u> 570 324			
31 7/26-8	3/01 0 08 0	0	0	0	570			
31 7/26-8 32 8/02-0	3/01 0	0	0	0	570 324			
31 7/26-8 32 8/02-0 37 9/06-1	3/01 0 08 0 12 <u>0</u>	0 0 335	0 0 1,050	0 0 0	570 324 0			
31 7/26-8 32 8/02-0 37 9/06-1 Total	3/01 0 08 0 12 <u>0</u>	0 0 335	0 0 1,050	0 0 0	570 324 0			
31 7/26-8 32 8/02-0 37 9/06-1 Total	3/01 0 08 0 12 <u>0</u> 0 T SECTION <u>Kings</u>	0 0 <u>335</u> 335	0 0 1,050 1,050	0 0 0 0	570 324 <u>0</u> 894			
31 7/26-8 32 8/02-0 37 9/06-1 Total THIN POINT	3/01 0 08 0 12 <u>0</u> 0 SECTION Kings	0 0 335 335 Sockeye	0 0 1,050 1,050	0 0 0 0	570 324 <u>0</u> 894			
31 7/26-8 32 8/02-0 37 9/06-1 Total THIN POINT Week* 29 7/2-18 36 9/05	3/01 0 08 0 12 <u>0</u> 0 T SECTION <u>Kings</u> 3 0	0 0 335 335 335 <u>Sockeye</u> 1,000 165	0 0 1,050 1,050 Cohos 0	0 0 0 0 Pinks 0	570 324 0 894 0 0			

Table SF 2.

MORZHOVOI BAY SECTION ...

	20101								
Wee	<u>k</u> *	Kinas	Sockeye	Cohos	<u>Pinks</u>	Chums			
28 29 30 31 32	7/06-11 7/12-18 7/19-25 7/26-8/01 8/02-08	4 1 1 0 0	1,807 711 310 260 139	8 42 54 228 51	4 30 18 13 57	237 180 355 95 322			
37	9/06-12	<u>o</u>	207	1,854	0	558			
Tot	a l	6	3,434	2,237	122 ·.	1,747			
KEN	KENMORE HEAD TO SCOTCH CAP								
Wee	<u>k</u> *	<u>Kings</u>	Sockeye	Cohos	<u>Pinks</u>	Chums			
24 25 26	6/07-13 6/14-20 6/21-27	524 2,093 1,400	32,186 300,579 319,632	0 0 380	5 827 10,510	38,249 196,127 171,579			
28 29 30 31 32	7/06-11 7/12-18 7/19-25 7/26-8/01 8/02-08	87 8 8 26 5	28,509 15,119 5,511 3,942 1,269	605 3,565 8,958 16,961 2,890	3,824 1,093 485 581 431	22,481 10,403 9,210 7,053 4,124			
36 37	9/05 9/06-12	0	8 12	150 188	0 0	130 220			
Tot	ta1	4,151	706,767	33,697	17,756	459,576			
UNA	NLASKA ISLAND)	-	— ·					
Wee	<u>*</u> k*	Kinas	Sockeye	Cohos	Pinks	Chums			
27	6/28-7/04	- <u>0</u>	<u>75</u>	<u>0</u>	<u>0</u>	<u>0</u>			
Tot	al	0	75	0	0	0			

Table SF 2.

URILIA BAY	U	RI	LIA	BAY
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Week*	Kings	Sockeye	Cohos	<u>Pinks</u>	Chums
24 6/01 25 6/14 26 6/21 27 6/28	1-06 0 7-13 0 4-20 1 1-27 1 3-7/04 2 5-11 1	422 1,360 20,075 39,474 33,758 9,330	0 0 0 0	0 0 0 0 0	0 0 0 0 10 0
37 9/0	5-12 <u>0</u>	0	7,612	<u>0</u>	<u>34</u>
Tota1	5	104,419	7,612	. 0	44

311-52 & 60 - SWANSON LAGOON AND BECHEVIN BAY

Wee	<u>k</u> *	Kings	Sockeye	Cohos	Pinks	Chums
26 27 28 29 30 31 32 33	6/21-27 6/28-7/04 7/05-11 7/12-18 7/19-25 7/26-8/01 8/02-08 8/09-15	0 0 2 0 0 1 0	822 685 1,190 1,148 5,007 9,610 11,160 21	0 0 0 0 0 0	0 0 4 10 39 357 369	2,566 2,868 13,449 7,343 4,325 9,098 2,176 4,554
35 36 37 Tot	8/25 9/05 9/06-12	0 0 0 3	0 2,352 1,452 33,447	0 3,233 5,806 9,049	60 0 0 839	11,080 1,496 5,613 64,568

312 - IZEMBEK - MOFFET BAY SECTION

Wee	<u>*</u> *	Kings	<u>Sockeye</u>	Cohos	<u>Pinks</u>	Chums
26 27 28 29 30 31 32	6/21-27 6/28-7/04 7/05-11 7/12-18 7/19-25 7/26-8/01 8/02-08	38 6 6 0 0 2	671 483 3,715 436 9 641 296	0 0 0 0 0 0	0 0 0 0 0 1 6	2,586 5,814 23,787 10,709 640 42,505 19,731

Table SF 2.

312 - IZEMBEK - MOFFET BAY SECTION (continued)											
<u>Week</u> *	Kings	Sockeye	Cohos	<u>Pinks</u>	Chums						
33 8/09-15	0	224	31	0	39,188						
37 9/06-12	_0	0	2,860	<u>0</u>	3,678						
Total	52	6,475	2,897	7	148,638						
313-10 BLACK	313-10 BLACK HILLS SECTION										
Week*	<u>Kings</u>	Sockeye	Cohos	Pinks	Chums						
27 6/28-7/04 28 7/05-11	40 _60	62 _0	0 <u>0</u>	0 <u>0</u>	8 <u>1</u>						

313-30	MELCON	IACOON	SECTION

Tota1

Wee	<u><</u> *	Kings	<u>Sockeye</u>	Cohos	<u>Pinks</u>	Chums
23 24 25 26 27 28 29 30 31 32 33	6/01-06 6/07-13 6/14-20 6/21-27 6/28-7/04 7/05-11 7/12-18 7/19-25 7/26-8/01 8/02-08 8/09-15	322 860 1,807 1,709 756 261 78 14 4	64 1,648 6,018 20,169 26,185 22,475 32,434 12,160 2,947 1,873 1,280	0 0 0 0 0 0 0 4 254 3,201	0 0 0 0 0 0 1 2 0	0 0 299 57 50 147 1,356 2,073 1,490 804
34 35 36 37 Tot	8/16-22 8/23-29 8/30-9/05 9/06-12	2 3 1 0 5,823	826 319 63 10 128,471	13,083 21,720 29,618 15,818 83,698	30 7 2 2 2 45	232 102 38 11 6,659

Table SF 2.

314-20 - HERE	ENDEEN	BAY
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Week*	Kings	<u>Sockeye</u>	Cohos	<u>Pinks</u>	Chums
29 7/16 30 7/19	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	115 4,486
Tota1	0	0	0	0	4,601

PORT MOLLER BAY TO CAPE SENIAVIN

<u>Week</u> *	<u>Kings</u>	<u>Sockeye</u>	Cohos	<u>Pinks</u>	Chums
23 6/01-06 24 6/07-13 25 6/14-20 26 6/21-27 27 6/28-7, 28 7/05-13 29 7/12-18 30 7/19-28 31 7/26-8,	3 679 1,074 7 1,131 704 443 1 32 3 67 5 42	28 222 8,803 49,095 38,475 15,112 48,097 23,699 3,264	0 0 0 0 0 0 2 0	0 0 0 0 2 3 5 3 22	25 178 3,709 23,751 25,669 4,747 21,447 6,999 2,167
33 8/09-19 34 8/16-29 35 8/23-29 36 8/30-9 37 9/06-1 38 9/13-1	2 5 9 3 /05 0 2 0	7,738 7,297 4,591 3,769 2,543 1,904	286 709 1,266 1,571 922 226 4,993	434 437 243 131 78 6 1,364	3,616 1,495 635 400 237 70 95,145

316 - THREE HILLS AND ILNIK SECTIONS

<u>Week</u> *	Kings	Sockeye	Cohos	<u>Pinks</u>	Chums
23 6/01-06 24 6/07-13 25 6/14-20 26 6/21-27 27 6/28-7/04 28 7/05-11 29 7/12-18 30 7/19-25	0 0 12 88 345 222 100 64	627 1,363 2,162 15,699 108,891 280,620 191,094 74,073	0 0 0 0 0 0 8 6	0 0 0 0 18 27 39 66	0 0 1,376 4,217 9,973 12,326 7,890

316 - THREE HILLS AND ILNIK SECTIONS (continued)

Time Meta And Tenth Sections (Continued)							
Week*	Kings	Sockeye	Cohos	Pinks	Chums		
31 7/26-8/01	32	25,413	40	46	8,230		
33 8/09-15 34 8/16-22 35 8/23-29 36 8/30-9/05 37 9/06-12 38 9/13-19	6 1 2 1 0	10,202 3,784 4,169 1,122 130 2	1,850 2,669 7,678 8,880 1,597 669	322 164 251 207 24	2,814 605 380 139 39 2		
Total	873	719,351	23,397	1,164	47,991		
317 - PORT HEIDI	EN SECTION						
<u>Week</u> *	Kings	Sockeye	Cohos	<u>Pinks</u>	Chums		
23 6/01-06 24 6/07-13 25 6/14-20	599 1,597 985	1 87 268	0 0 0	0 0 0	0 0 0		
27 6/28-7/04 28 7/05-11 29 7/12-18 30 7/19-25	27 3 3 0	1,014 498 395 69	0 0 0 0	0 0 0	553 250 138 26		
33 8/09-15 34 8/16-22 35 8/23-29 36 8/30-9/05 37 9/06-12 38 9/13-19	0 3 0 0 0	18 8 1 0 0	824 7,555 7,044 9,570 2,036 492	1 0 0 0 0 0	20 11 8 0 0		
Total	3,217	2,359	27,521	1	1,006		
318 - CINDER RI	VER SECTION	_	-	·			
Week*	<u>Kings</u>	Sockeye	Cohos	Pinks	Chums		
33 8/09-15 34 8/16-22 35 8/23-29	0 2 <u>1</u>	6 56 <u>152</u>	36 2,197 10,384	0 20 46	1 22 12		
Total	3	214	12,617	66	35		

^{*}The weeks listed here do not necessarily include the entire statistical week. Complete statistical weeks are listed in the back of this report.

Table SF 3.

1987 SALMON CATCHES IN NUMBERS OF FISH BY GEAR

SOUTHEASTERN AND SOUTH CENTRAL DISTRICTS

	Kings	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
Seine Set Gillnet	4,739 263	332,364 395,809	165,713 17,560	1,098,003 51,073	719,778 70,532	2,320,597 535,237
Tota1	5,002	728,173	183,273	1,149,076	790,310	2,855,834
		SOUTHWESTE	RN AND UNII	MAK DISTRICT:	S	
	<u>Kings</u>	Sockeyes	Cohos	<u>Pinks</u>	Chums	Tota1
Seine Drift Gillnet Set Gillnet	2,985 1,107 80	247,902 440,575 33,103	4,050 30,445 6,972	53,469 3,607 2,404	282,130 291,049 12,778	590,536 766,783 55,337
Total	4,172	721,580	41,467	59,480	585,957	1,412,656
		SOUT	H PENINSULA	A TOTAL		
	<u>Kings</u>	Sockeyes	Cohos	Pinks	Chums	<u>Total</u>
Seine Drift Gillnet Set Gillnet	7,724 1,107 343	580,266 440,575 428,912	169,763 30,445 24,532	1,151,472 3,607 53,477	1,001,908 291,049 83,310	2,911,133 766,783 590,574
Total	9,174	1,449,753	224,740	1,208,556	1,376,267	4,268,490
		ALEU'	TIAN ISLANI	DS AREA		
	Kings	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
Seine	<u>0</u>	<u>75</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>75</u>
Total	0	75	0	0	0	75
		NORTI	HWESTERN DI	ISTRICT		
	<u>Kings</u>	Sockeyes	Cohos	Pinks	Chums	Total
Seine Drift Gillnet Set Gillnet	56 3 1	124,667 9,308 10,366	15,777 1,403 2,378	819 16 <u>11</u>	198,816 12,115 	340,135 22,845 15,075
Total	60	144,341	19,558	846	213,250	378,055

Table SF 3.

NORTHERN DISTRICT

	<u>Kings</u>	Sockeyes	Cohos	<u>Pinks</u>	Chums	Total
Seine Drift Gillnet Set Gillnet	46 9,994 4,086	563 959,411 105,120	0 90,037 62,189	0 2,581 <u>59</u>	11,555 129,533 14,358	12,164 1,191,556 185,812
Total	14,126	1,065,094	152,226	2,640	155,446	1,389,532
		NORTI	H PENINSULA	TOTAL		·

	Kings	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
Seine Drift Gillnet Set Gillnet	102 9,997 4,087	125,230 968,719 115,486	15,777 91,440 64,567	819 2,597 70	210,371 141,648 16,677	352,299 1,214,401 200,887
Total	14,186	1,209,435	171,784	3,486	368,696	1,767,587

ALASKA PENINSULA - ALEUTIAN ISLANDS AREA

	<u>Kings</u>	Sockeyes	Cohos	<u>Pinks</u>	Chums	<u>Total</u>
Seine Drift Gillnet Set Gillnet	7,826 11,104 4,430	705,571 1,409,294 544,398	185,540 121,885 89,099	1,152,291 6,204 53,547	1,212,279 432,697 99,987	3,263,507 1,981,184 791,461
Total	23,360	2,659,263	396,524	1,212,042	1,744,963	6,036,152

Table SG.1. Bear River sockeye daily and cumulative escapement counts, 1987.

		Daily -		Cum	ulative		Dai of	ly % Total		Cumulative %			
Date ⁻	Adults	Jacks	Total	Adults	Jacks	Total -	Adults	Jacks	Total	Adults	Jacks	Tota	
						10001	760163	oucks		Addits	Uacks		
June 2	. 5	0	5	5 5	0	5	0.0	0.0	0.0	0.0	0.0	0.0	
3	0	0	0		0	5	0.0	0.0	0.0	0.0	0.0	0.0	
4	6	0	6	11	0	11	0.0	0.0	0.0	0.0	0.0	0.0	
5	0	0	0	11	0	11	0.0	0.0	0.0	0.0	0.0	0.0	
6	18	5	23	29	5	34	0.0	0.1	0.0	0.0	0.1	0.0	
7	4	1	5	33	6	39	0.0	0.0	0.0	0.0	0.2	0.0	
8	113	10	123	146	16	162	0.0	0.3	0.0	0.1	0.5	0.1	
9	46	5	51	192	21	213	0.0	0.1	0.0	0.1	0.6	0.1	
10	51	10	61	243	31	274	0.0	0.3	0.0	0.1	0.9	0.1	
11	30	3	33	273	34	307	0.0	0.1	0.0	0.1	1.0	0.1	
12	160	16	176	433	50	483	0.1	0.5	0.1	0.2	1.5	0.2	
13	781	51	832	1,214	101	1,315	0.3	1.5	0.3	0.5	3.0	0.5	
14	895	39	934	2,109	140	2,249	0.4	1.1	0.4	0.9	4.1	0.9	
15	810	37	847	2,919	177	3,096	0.3	1.1	0.3	1.2	5.2	0.9 1.2	
16	85	6	91	3,004	183	3,187	0.0	0.2	0.0	1.2	5.4	1.3	
17	1,206	67	1,273	4,210	250	4,460	0.5	2.0	0.5	1.7	7.4	1.8	
18	1,448	42	1,490	5,658	292	5,950	0.6	1.2	0.6	2.3	8.6	2.4	
19	2,641	64	2,705	8,299	356	8,655	1.1	1.9	1.1	3.4	10.5	3.5	
20	2,313	137	2,450	10,612	493	11,105	0.9	4.0	1.0	4.3	14.5	4.4	
21	3,565	168	3,733	14,177	661	14,838	1.4	4.9	1.5	5.7	19.5	5.9	
22	3,540	61	3,601	17,717	722	18,439	1.4	1.8	1.4	7.2	21.3	7.4	
23	3,606	77	3,683	21,323	799	22,122	1.5	2.3	1.5	8.6	23.5	8.8	
24	3,215	76	3,291	24,538	875	25,413	1.3	2.2	1.3	9.9	25.8	10.1	
25	4,458	72	4,530	28,996	947	29,943	1.8	2.1	1.8	11.7	27.9	12.0	
26	4,236	85	4,321	33,232	1,032	34,264	1.7	2.5	1.7	13.4	30.4	13.7	
27	7,871	114	7,985	41,103	1,146	42,249	3.2	3.4	3.2	16.6	33.8	16.9	
28	6,537	79	6,616	47,640	1,225	48,865	2.6	2.3	2.6	19.3	36.1	19.5	
29	4,635	63	4,698	52,275	1,288	53,563	1.9	1.9	1.9	21.2	37.9	21.4	
30	2,464	80	2,544	54,739	1,368	56,107	1.0	2.4	1.0	22.1	40.3	22.4	

Table SG.1. (page 2 of 4)

		Daily -		Cun	rulative		Dai of	ly % Total			ative % Total	
Date	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Tota
July 01	. 983	26	1,009	55,722	1,394	57,116	0.4	0.8	0.4	22.5	41.1	22.8
02	508	18	526	56,230	1,412	57,642	0.2	0.5	0.2	22.8	41.6	23.0
03	740	29	76 9	56,970	1,441	58,411	0.3	0.9	0.3	23.1	42.5	23.3
04	7,500	143	7,643	64,470	1,584	66,054	3.0	4.2	3.1	26.1	46.7	26.4
05	5,060	109	5,169	69,530	1,693	71,223	2.0	3.2	2.1	28.1	49.9	28.4
06	6,053	83	6,136	75,583	1,776	77,359	2.4	2.4	2.4	30.6	52.3	30.9
07	14,571	114	14,685	90,154	1,890	92,044	5.9	3.4	5.9	36.5	55.7	36.7
08	8,247	67	8,314	98,401	1,957	100,358	3.3	2.0	3.3	39.8	57.7	40.1
09	6,099	83	6,182	104,500	2,040	106,540	2.5	2.4	2.5	42.3	60.1	42.5
10	6,171	108	6,279	110,671	2,148	112,819	2.5	3.2	2.5	44.8	63.3	45.0
11	4,308	23	4,331	114,979	2,171	117,150	1.7	0.7	1.7	46.5	64.0	46.8
12	7,546	55	7,601	122,525	2,226	124,751	3.1	1.6	3.0	49.6	65.6	49.8
13	3,819	54	3,873	126,344	2,280	128,624	1.5	1.6	1.5	51.1	67.2	51.3
14	11,572	144	11,716	137,916	2,424	140,340	4.7	4.2	4.7	55.8	71.4	56.0
15	7,503	90	7,593	145,419	2,514	147,933	3.0	2.7	3.0	58.8	74.1	59.0
16	4,119	73	4,192	149,538	2,587	152,125	1.7	2.2	1.7	60.5	76.2	60.7
17	2,474	64	2,538	152,012	2,651	154,663	1.0	1.9	1.0	61.5	78.1	61.7
18	964	7	971	152,976	2,658	155,634	0.4	0.2	0.4	61.9	78.3	62.1
19	335	1	3 36	153,311	2,659	155,970	0.1	0.0	0.1	62.0	78.3	62.3
20	24	0	24	153,335	2,659	155,994	0.0	0.0	0.0	62.0	78.3	62.3
21	20	0	20	153,355	2,659	156,014	0.0	0.0	0.0	62.0	78.3	62.3
22	97	0	97	153,452	2,659	156,111	0.0	0.0	0.0	62.1	78.3	62.3
23	45	0	45	153,497	2,659	156,156	0.0	0.0	0.0	62.1	78.3	62.3
24	270	3	273	153,767	2,662	156,429	0.1	0.1	0.1	62.2	78.4	62.4
25	799	26	825	154,566	2,688	157,254	0.3	0.8	0.3	62.5	79.2	62.8
26	1,878	34	1,912	156,444	2,722	159,166	0.8	1.0	0.8	63.3	80.2	63.5
27	1,563	16	1,579	158,007	2,738	160,745	0.6	0.5	0.6	63.9	80.7	64.2
28	2,570	53	2,623	160,577	2,791	163,368	1.0	1.6	1.0	65.0	82.2	65.2
29	1,296	27	1,323	161,873	2,818	164,691	0.5	0.8	0.5	65.5	83.0	65.7
30	1,029	25	1,054	162,902	2,843	165,745	0.4	0.7	0.4	65.9	83.8	66.2
31	2,871	67	2,938	165,773	2,910	168,683	1.2	2.0	1.2	67.1	85.7	67.3

Table SG.1. (page 3 of 4)

		D 13		•	-		Dai	1y %		Cumu	lative %	
		Daily -		Cum	ulative -		of	Total		0	f Total	
Date	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Tota
Aug 1	2,360	42	2,402	168,133	2,952	171,085	1.0	1.2	1.0	68.0	87.0	68.3
2	2,380	38	2,418	170,513	2,990	173,503	1.0	1.1	1.0	69.0	88.1	69.2
3	2,707	27	2,734	173,220	3,017	176,237	1.1	0.8	1.1	70.1	88.9	70.3
4	1,878	20	1,898	175,098	3,037	178,135	0.8	0.6	0.8	70.8	89.5	71.1
5	1,324	39	1,363	176,422	3,076	179,498	0.5	1.1	0.5	71.4	90.6	71.6
6	1,999	37	2,036	178,421	3,113	181,534	0.8	1.1	0.8	72.2	91.7	72.5
7	4,606	120	4,726	183,027	3,233	186,260	1.9	3.5	1.9	74.1	95.3	74.3
8	3,509	63	3,572	186,536	3,296	189,832	1.4	1.9	1.4	75.5	97.1	75.8
9	2,042	16	2,058	188,578	3,312	191,890	0.8	0.5	0.8	76.3	97.6	76.6
10	25	0	25	188,603	3,312	191,915	0.0	0.0	0.0	76.3	97.6	76.6
11	553	0	553	189,156	3,312	192,468	0.2	0.0	0.2	76.5	97.6	76.8
12	2,894	5	2,899	192,050	3,317	195,367	1.2	0.1	1.2	77.7	97.7	78.0
13	4,081	5	4,086	196,131	3,322	199,453	1.7	0.1	1.6	79.4	97.9	79.6
14	3,359	7	3,366	199,490	3,329	202,819	1.4	0.2	1.3	80.7	98.1	80.9
15	9,436	23	9,459	208,926	3,352	212,278	3.8	0.7	3.8	84.5	98.8	84.7
16	6,274	13	6,287	215,200	3,365	218,565	2.5	0.4	2.5	87.1	99.1	87.2
17	5,180	4	5,184	220,380	3,369	223,749	2.1	0.1	2.1	89.2	99.3	89.3
18	3,748	9	3,757	224,128	3,378	227,506	1.5	0.3	1.5	90.7	99.5	90.8
19	2,655	2	2,657	226,783	3,380	230,163	1.1	0.1	1.1	91.8	99.6	91.9
20	6,114	6	6,120	232,897	3,386	236,283	2.5	0.2	2.4	94.2	99.8	94.3
21	2,194	3	2,197	235,091	3,389	238,480	0.9	0.1	0.9	95.1	99.9	95.2
22	2,126	4	2,130	237,217	3,393	240,610	0.9	0.1	0.9	96.0	100.0	96.0
23	2,210	0	2,210	239,427	3,393	242,820	0.9	0.0	0.9	96.9	100.0	96.9
24	2,258	1	2,259	241,685	3,394	245,079	0.9	0.0	0.9	97.8	100.0	97.8
25	2,039	0	2,039	243,724	3,394	247,118	0.8	0.0	8.0	98.6	100.0	98.6
26	1,765	0	1,765	245,489	3,394	248,883	0.7	0.0	0.7	99.3	100.0	99.3
27	704	0	704	246, 193	3,394	249,587	0.3	0.0	0.3	99.6	100.0	99.6
28	395	[*] 0	395	246,588	3,394	249,982	0.2	0.0	0.2	99.8	100.0	99.8

Table SG.1. (page 4 of 4)

		Daily -		Cur	ulative			ily % Total -			lative % f Total -	
Date	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total
29 30 31 Sept 1	261 47 195 66	0 0 0 0	261 47 195 66	246,849 246,896 247,091 247,157	3,394 3,394 3,394 3,394	250,243 250,290 250,485 250,551	0.1 0.0 0.1 0.0	0.0 0.0 0.0 0.0	0.1 0.0 0.1 0.0	99.9 99.9 100.0 100.0	100.0 100.0 100.0 100.0	99.9 99.9 100.0 100.0
	247,157	3,394	250,551	247,157	3,394	250,551	100.0	100.0	100.0	100.0	100.0	100.0

Table SG 2. Bear River king salmon daily and cumulative escapement counts.

⁻continued-

Table SG 2 (p 2 of 2)

1987 Bear River King Salmon Escapement (Weir) counts (continued)

Date	Daily Count	Cumulative Count	Daily % of Total	Cumulative Percent
25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 31 31 31 31 31 31 31 31 31 31 31 31	3 2 4 0 • 14 1 0 2 10 18 4 10 2 1 8 4 12 0 2 7 1 0 3 3 4 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	26 28 32 32 46 47 47 49 59 77 81 91 93 94 102 106 118 120 127 128 131 134 138 140 140 140 141 144 148 148 148 148 148 148	2.0 1.4 2.7 0.0 9.5 0.7 0.0 1.4 6.8 12.2 2.7 6.8 1.4 0.7 5.4 2.7 8.1 0.0 2.0 2.7 1.4 0.0 0.7 2.0 2.7 1.4 0.7 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.7 0.0 0.7 0.7	17.6 18.9 21.6 21.6 31.1 31.8 31.8 33.1 39.9 52.0 54.7 61.5 62.8 63.5 71.6 79.7 79.7 81.1 85.8 86.5 93.6 94.6 94.6 95.3 97.3 99.3 100.0 100.0 100.0 100.0 100.0
,	148	148	100.0	100.0

Table SG 2. Bear River pink salmon daily and cumulative escapement counts, 1987.

Date	Daily Count	Cumulative Count	Daily % of Total	Cumulative Percent
Date July 27 28 29 30 31 Aug. 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 Sept 01	Count 4 25 4 5 2 15 3 2 3 5 4 9 (2) 8 0 4 3 8 7 10 9 4 10 5 2 11 8 4 2 7 5 0 0 0 0 0 0	Count 4 29 33 38 40 55 58 60 63 68 72 81 79 87 91 94 102 109 119 128 132 142 147 149 160 168 172 174 181 186 186 186 186 186 186 186	of Total 2.2 13.4 2.2 2.7 1.1 8.1 1.6 1.1 1.6 2.7 2.2 4.8 -1.1 4.3 0.0 2.2 1.6 4.3 3.8 5.4 4.8 2.2 5.4 2.7 1.1 5.9 4.3 2.2 1.1 3.8 2.7 0.0 0.0 0.0 0.0 0.0 0.0	Percent 2.2 15.6 17.7 20.4 21.5 29.6 31.2 32.3 33.9 36.6 38.7 43.5 46.8 46.8 46.8 46.8 46.8 50.5 54.8 58.6 64.0 68.8 71.0 76.3 79.0 80.1 86.0 90.3 92.5 93.5 97.3 100.0 100.0 100.0 100.0 100.0 100.0 100.0
	186	186	100.0	100.0

30

Table SG 4. Nelson River sockeye salmon daily and cumulative escapement counts, 1987.

	<u>Daily</u>			Cı	Cumulative			Daily Cou ercent of		Daily Count as Percent of Total		
)ate	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total
June 14	264	12	276	264	12	276	0.2	0.3	0.2	0.2	0.3	0.2
15,,	201	15	216	465	27	492	0.1	0.4	0.2	0.3	0.7	0.3
16 <u>1</u> / 17 <u>1</u> / 18 <u>1</u> / 19 <u>1</u> / 20 <u>1</u> /	336	15	351	801	42	843	0.2	0.4	0.2	0.6	1.0	0.6
17 <u>1</u> /,	336	15	351	1,137	57	1,194	0.2	0.4	0.2	0.8	1.4	0.8
18 <u>1</u> /	336	15	351	1,473	72	1,545	0.2	0.4	0.2	1.1	1.7	1.1
191/	336	15	351	1,809	87	1,896	0.2	0.4	0.2	1.3	2.1	1.3
	336	15	351	2,145	102	2,247	0.2	0.4	0.2	1.6	2.5	1.6
21	471	15	486	2,616	117	2,733	0.3	0.4	0.3	1.9	2.8	1.9
22	167	8	175	2,783	125	2,908	0.1	0.2	0.1	2.0	3.0	2.1
23	435	36	471	3,218	161	3,379	0.3	0.9	0.3	2.3	3.9	2.4
24	1,226	120	1,346	4,444	281	4,725	0.9	2.9	1.0	3.2	6.8	3.3
25	891	53	944	5,335	334	5,669	0.6	1.3	0.7	3.9	8.1	4.0
26	1,049	21	1,070	6,384	355	6,739	8.0	0.5	0.8	4.6	8.6	4.8
27	5,400	186	5,586	11,784	541	12,325	3.9	4.5	4.0	8.6	13.1	8.7
28 29 <u>2</u> /	2,802	75	2,877	14,586	616	15,202	2.0	1.8	2.0	10.6	15.0	10.7
	1,777	45	1,822	16,363	661	17,024	1.3	1.1	1.3	11.9	16.1	12.0
30,	751	14	765	17,114	675	17,789	0.5	0.3	0.5	12.5	16.4	12.6
July 01 <u>3</u> /	608	10	618	17,722	685	18,407	0.4	0.2	0.4	12.9	16.6	13.0

Table SG 4. (p 2 of 3)

1987 Nelson (Sapsuk) River Sockeye Escapement (Tower) Counts (continued)

	Daily		C	Cumulative			Daily Count as Percent of Total			Cumulative Count as Percent of Tota			
Date		Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total
July	02	608	10	618	18,330	695	19,025	0.4	0.2	0.4	13.4	16.9	13.5
	03	465	6	471	18,795	701	19,496	0.3	0.1	0.3	13.7	17.0	13.8
	04	4,392	158	4,550	23,187	859	24,046	3.2	3.8	3.2	: 16.9	20.9	17.0
	05	8,840	272	9,112	32,027	1,131	33,158	6.4	6.6	6.4	23.3	27.5	23.4
	06	8,066	180	8,246	40,093	1,311	41,404	5.9	4.4	5.8	29.2	31.9	29.3
	07	12,696	324	13,020	52,789	1,635	54,424	9.2	7.9	9.2	38.4	39.7	38.5
	80	19,061	297	19,358	71,850	1,932	73,782	13.9	7.2	13.7	52.3	46.9	52.2
	09	8,925	237	9,162	80,775	2,169	82,944	6.5	5.8	6.5	58.8	52.7	58.7
	10	4,881	194	5,075	85,656	2,363	88,019	3.6	4.7	3.6	62.4	57.4	62.2
	11	4,141	147	4,288	89,797	2,510	92,307	3.0	3.6	3.0	65.4	61.0	65.3
	12	8,655	203	8,858	98,452	2,713	101,165	6.3	4.9	6.3	71.7	65.9	71.5
	13	8,270	293	8,563	106,722	3,006	109,728	6.0	7.1	6.1	77.7	73.0	77.6
	14	7,529	267	7,796	114,251	3,273	117,524	5.5	6.5	5.5	83.2	79.5	83.1
	15	6,864	287	7,151	121,115	3,560	124,675	5.0	7.0	5.1	88.2	86.5	88.2
	16	2,456	102	2,558	123,571	3,662	127,233	1.8	2.5	1.8	90.0	89.0	90.0
	17	2,229	83	2,312	125,800	3,745	129,545	1.6	2.0	1.6	91.6	91.0	91.6
	18	4,138	182	4,320	129,938	3,927	133,865	3.0	4.4	3.1	94.6	95.4	94.7
	19	1,525	0	1,525	131,463	3,927	135,390	1.1	0.0	1.1	95.8	95.4	95.7
	20	1,098	0	1,098	132,561	3,927	136,488	0.8	0.0	0.8	96.5	95.4	96.5
	21	666	0	666	133,227	3,927	137,154	0.5	0.0	0.5	97.0	95.4	97.0
	22	804	6	810	134,031	3,933	137,964	0.6	0.1	0.6	97.6	95.6	97.6

Table SG 4 (p 3 of 3)
1987 Nelson (Sapsuk) River Sockeye Escapement (Tower) Counts (continued)

	Daily			Cumulative			Daily Count as Percent of Total			Cumulative Count as Percent of Tota		
Date	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Total
July 23 24 25 26	1,170 822 693 582	57 72 12 42	1,227 894 705 624	135,201 136,023 136,716 137,298	3,990 4,062 4,074 4,116	139,191 140,085 140,790 141,414	0.9 0.6 0.5 0.4	1.4 1.7 0.3 1.0	0.9 0.6 0.5 0.4	98.5 99.1 99.6 100.0	96.9 98.7 99.0 100.0	98.4 99.1 99.6 100.0
Total	137,298	4,116	141,414	137,298	4,116	141,414	100.0	100.0	100.0	100.0	100.0	100.0

^{1/} Turbid water prohibited visuial counts, daily estimate was determined by averaging counts on June 15 and 21.

^{2/} Turbid water prohibited visuial counts, daily estimate was determined by averaging counts on June 28 and 30.

^{3/} Turbid water prohibited visuial counts, daily estimate was determined by averaging counts on June 28 and July 3.

Table SG 2. Nelson River king salmon daily and cumulative escapement counts, 1987

Date	Daily Count	Cumulative Count	Daily % of Total	Cumulative Percent
1 0.7	1.0	1.0	0.6	
June 27	18	18	2.6	2.6
28	0	18	0.0	2.6 2.6 2.6 2.6 2.6 6.9 6.9
29 30	0	18	0.0	2.6
	0	8 8 8	0.0	2.6
July 01	0	8	0.0	2.6
02	0	8	0.0	2.6
03	0	8	0.0 3.4	2.6
04	2 4	42	3.4	6.0
05	6	48	0.9	6.9
06	0	48	0.0	6.9
07	150	198	21.6	28.4
08	78	276	11.2 5.2 9.5 14.7	39.7
09	36	312	5.2	44.8
10	66	378	9 5	54.3
11	102	480	14 7	69.0
12	60	540	8.6	77.6
13	30	570	4.3	81.9
1.4	24	594	4.3 3.4 2.6	85.3
1 4 1 5 1 6	18	612	2.4	87.9
15	0	612	2.0	
17	10	612	0.0	87.9
1 /	18	630	2.6	90.5
18	0	630	0.0	90.5
19	0	630	0.0	90.5
20	Ü	630	0.0	90.5
21	0	630	0.0	90.5
22	0 0 0 0 24	630	0.0	90.5
23		654	3.4	94.0
24	0	654	0.0	94.0
25	0	654	0.0	94.0
26	4 2	696	6.0	100.0
-	696	696	100.0	100.0

Appendix J.1. Salmon escapement survey counts in the South Peninsula Management Area, 1987.

		Julian Calendar		Survey			Soecie	s		•	
Nunber	Name	Day		Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Pewarks
UTHEASTE	N DISTRICT										
281-35.06	Boulder Bay	241	29-Aug	-	e	e	1,250	3.000	0	Schwarz	
		250	07-Seo	-	6	ę.	500	1,000	8	Schwarz	Additional some carcasses
81-35.05	Fox Bay	241	29-Aug	-	0	0	1.025	0	0	Schwarz	
		250	07-Sep	-	0	0	275	0	6	Schwarz	Additional 300 carcasses
81-35.04	Fox Pay	241	29-Aug	•	0	0	258	e	0	Schwarz	100 pinks at stream mouth
		250	0 7-Seo	-	0	0	1,300	e	6	Schwarz	Additional some carcasses
81-35. 92	Fox Bay	228	16-Aug	-	0	•	e	0	0	Shaul	6,000 pinks at stream mouth
	·	231	19-Aug	-	9	ø	100	ë	Ð	Schwarz	1,000 pinks at stream wouth, 5,700 pinks in bay
		241	29-Aug	-	9	•	4.625	. 6	0	Schwarz	•
		250	0 7-Sep	-	9	8	10.150	6	9	Schwarz	Additional many carcasses
281-34.08	Island Bay	241	29-Aug	-	6	9	85	0	6	Schwarz	250 pinks at stream wouth
	•	25@	0 7~Sea	-	6	6	750	8	8	Schwarz	Additional 200 carcasses
81-34.07	Island Bay	245	02-Seo	-	e	0	0	0	8	Schwarz	•
	,	258	07-Sep		0	0	788	8	8	Schwarz	
81-34.26	Island Bay	228	16-Aua	-	0	8	. 0	8	0	Shaul	6.000 pinks at stream mouth, 1.000 pinks in bay
	,	241	29-Au	-	0	0	1,150	0	8	Schwarz	
			07-Sep	-	0	0	7,200	0	0	Schwarz	
81-34, 95	Island Bay	228	16-Aug	-	9	0	e	0	0	Shaul	
01 0.110			19-Aug	-	9	0	4.900	0	0	Schwarz	14,620 pinks at stream mouth, additional 8,660 in bay
			29-Aug	-	9	ě	5.100	ē		Schwarz	22,000 pinks at stream wouth, additional 2,000 in bay
		250	07-Sep	-	õ	0	7,500	0	ě	Schwarz	
81-34.04	Island Bay	241	29-Aug	-	e	e	900	•		Schwarz	1,500 pinks at stream mouth
91-34. 97	Stonehouse	225	14-Aug	_	0	0	0	e	e	Schwarz	
	Creek		16-Aug		ě	9	ě	ě	0	Shaul	12,000 pinks at stream wouth
	U. SEN		19-Aug	_	ě	0		ě	0	Schwarz	32,800 pinks at stream mouth
			29-Aug	-	0	ē	7.720	. 0	ě	Schwarz	18,000 pinks at stream wouth
			07-Sep		9	-	17,500	0	8	Schwarz	

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Table SG 6
Appendix J.1. (p 2 of 18)

Stream		Julian Calendar		Survey	Soecies			es		-	
Number	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho		Remarks
281-34. 62	Osterback	226	14-Aua	•		0	0	8	6.	Schwarz	
	Creek	228	16-Auo	-	0	e	0	9	0	Shaul	
		231	19-Aug	-	9	9	9	9	•	Schwarz	1,000 pinks at stream wouth
		241	29-Aug	-	0	e	5.275	9	0	Schwarz	
		250	e7-Sep	-	P	0	4,400	6	6	Schwarz	
281-34.01	Grandville-	226	14-Aug	-	0	e	9	0	e	Schwarz	
	Portage Inlet	231	19-Pug	-	9	6	0	590	0	Schwarz	2.070 pinks at stream mouth
		241	29-Auc	-	9	8	1,125	4.000		Schwarz	
		250	07-Sep	•	9	0	1,500	3.654	9	Schwarz	
281-33.05	Stepovak River	531	19-Aug	-	0	6	0	9	6	Schwarz	Partial survey, beach only, 84,528 salmon, mostly chum alco beach
		535	puA-85	~	6	e	6	8	9	Schwarz	Partial survey, beach only, 98,988 salvon, mostly chum alor beach
		241	29-Aug	Poor	0	6	2.500	13,000	0	Schwarz	Many jumpers off stream mouth
		250	07-Seo	Fair	0	6	8	39, 800	0	Schwarz	Partial survey, approximately 88% of the area, turbulent
281-33.04	Big River	241	29-Aug	-	6	ę	1,220	4,820	0	Schwarz	
		250	07-Sep	Fair	6	0	499	1,200	0	Schwarz	Muddy water
281-33. 83	Louie's Corner	241	29-Aug	-	8	6	2.888	12,250	9	Schwarz	
		250	0 7-Seo	•	.6	6	10,000	12,450	0	Schwarz	Excellent escapement
281-33.82	Ramsey Bay	241	29-Aug	-	0	0	0	3. 300	0	Schwarz	12.888 churs in Ramsey Bay
	į	250	07-Seo	-	e	0	4,038	500	0	Schwarz	
281-23.01	Ramsey Bay	241	29-Aug	Poor	9	9	e	475	0	Schwarz	
.51 50711		250	07-Sep	-	ø	6	500	6	0	Schwarz'	
281-32.07	Brub Gulch	212	31-Jul	-	8	e'	e	e	0	Shau1	
		226	14-Aug	-	0	0	e	325	0	Schwarz	
		231	19-Aug	-	0	0	0	8,588	6	Schwarz	
		239		-	•	0	15.600	7,600	0	Shaul	4,000 chums at stream mouth
		250	07-Sep	-	•	0	17,600	6, 269	6	Schwarz	•
281-32.65	Clark Bay	225	14-Aug	-	0	8	9	100	9	Schwarz	200 churs at stream wouth
		535	20-Aug	•	0	0	0	2	0	Schwarz	Mixture of 4.020 chums and pinks in bay
		250	07-Sep	-	6	9	2,500	1,100	0	Schwarz	

Appendix J.1. (p 3 of 18)

Stream		Julian Calendar		Survey						•	
Number	Name	Day	Date	Condition						Doserver	Pemarks
281-32.84	Little Norway	226	14-Aug	-		ø	e	450	9	Schwarz	
LOT DETE	eroric normal	232	20-Aug	-	ě	0	1500	850	ě	Schwarz	18,888 pinks and 2,588 churs in bay
		239	27-Aug	-	0	9	4,000	700	8	Shaul	8,878 pinks and 1,878 churs at stream mouth
		258	e7-Sep	-	0	0	12,800	0	8	Schwarz	200 pinks at stream mouth, wany carcasses
2A1-31.03	Orzinski	187	66-Jul	_	e	200		9	9	Shaul	58% in stream and 58% in lake, 688 sockeyes at stream wouth
31.65	(Orzenoi)	205		Excellent	ė	3, 300	6	6	0	ShauI	Salmon located in SE portion of lake, 200 sockeyes at streamouth
		295	24-591	-	9	2.600	9	9	0	Schwarz	FOREIT
		212	31-Jul	-	6	6,500	•	8	ě	Shaul	Beginning to soawm, sixture of 3.500 sockeyes and pinks at stream mouth
		218	06-Au	-	9	7,000	600		0	Schwarz	Pinks located in lake outlet, 258 pinks at stream south
		226	14-Aug	-	•		2760		6	Schwarz	Partial survey of lake outlet only
		232	-	-	0		7,400	. 6	8	Schwarz	Partial survey of lake outlet only, 20,000 pinks at stream mouth
		239	27-Aug	_	8	19,488	15,020		9	Shaul	24,800 pinks in bay
		250	07-Sep	•	0	11,400	25,000	•	0	Schwarz	Of which 600 sockeyes in inlet stream, additional 7,000 pir carcasses
281-20.04	Windbound Bay	241	29-Aug	-	0	0	0	0		Schwarz	2,300 pinks at stream wouth
	·	250	87-Seo	-	0	•	500	0	8	Schwarz	Additional 500 plus carcasses
281-20. 03	Chichagof	250	8 7-Sea	-	e	8	3.150	8	6	Schwarz	
281-20.02	Chichagof	205	24-Jul	-	0	9	8	1,400		Shaul	All saleon located in upper portion of outlet
		212	31-Jul	-	0	0	•	300	9	Shaul	4,898 chums at stream mouth
	V.	552	14-Aug	-	6	8	4,200	1,500		Schwarz	Partial survey, could not observe the lagnon
		228	16-Aug	-	0	•			0	Shaul	Partial survey, stream mouth only, 18,800 salmon at stream mouth
		232	20-Aug	-	9	0	11,000		6	Schwarz	Partial survey of stream, 4,500 pinks in bay
		241	29-Aug	Poor	9	0	6,250		•	Schwarz	
		250	07-Sep	Fair	0	•	5, 999	3, 200	. 0	Schwarz	Partial survey, lagoon muddy
281-20.01	Chichagof	515	31-Jul	•	9	•	8	0	•	Shaul	
		226	14-Aug	, -	e	•	335	0	0	Schwarz	
		232	20-Aug	-	6	e	1,400	0		Schwarz	
		241	29-Aug	-	8	8	7, 875	9	0	Schwarz	*****
		250	07-Sep		•	8	4,602	0	•	Schwarz	Additional many carcasses
281~10.64	Hest Cove	241	29-Aug	Poor	0	9	250			Schwarz	400 pinks at stream mouth
		250	07-Sea	-	6	9	500	0		Schwarz	Additional 2,000 carcasses

Appendix J.1. (p 4 of 18)

Stream		Julian Calendar		Survey	50BC i 68					•	
lumber	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Remarks
81-10.03	Suzy Creek	205	24-Jul	Excellent		8	700	e	0	- Shaul	
		212	31-Jul	-	0	0	3.600	9	0	Shaul	1.500 pinks at stream mouth
		218	%6- Rup	Excellent	0	9	4,875	9	0	Schwarz	1,828 pinks at stream mouth
		224	12-Aue	-	8	0	12. 200	0	0	Schwarz	
		228	15-Au	-	6	e	57,000	9	e	Shaul	8.020 pinks at stream wouth
		232	59-Aug	Foor	e	Ą		. 6	0	Schwarz	Partial survey, stream wouth only, 18,200 pinks at streamouth
		533	27-Aug	-	•	9	77,020	9	6	Shaul	**************************************
81-18.02	Doremoi Bay	239	27-Auc	-	ę	9	1,500	202	e	Shaul	
		258	07-Sep	-	6	9	1.270	1,200	8	Schwarz	Stream mouth blocked
201-10.01	Domenoi Pay	212	31-Jul	-	0	e	e	6	0	Shaul	
		239	27-Aug	-	0	e	14,070	400	e	Shaul	
		250	07-Sep	-	6	•	9.420	9	e	Schwarz	Additional 2,000 carcasses, good escapement
83-90.04	San Diego	239	27-Aug	-	0	0	0	700	e	Shaul	100 churs in the bay
		250	0 7-5ea	-	9	6	6	50	6	Schwarz	
83-90.03	San Diego	239	27-Aug	-	0	0	0	300	0	Shaul	
		250	0 7-5eo	-	0	0	6	300	9	Schwarz	
83-90.	San Diego	212	31-Jul	-	0	0		1,100	0	Shaul	1,000 churs at stream mouth
	(lageon Only)	224	12-Aug	-	0	0	6	380		Schwarz	Many jumpers in lagoon outlet
		239	27-Aug		0	8	8	6.500	0	Shaul	•
		250	67-Seo	-	0	8	6	3,650	6	Schwarz	
283-90.02	Rough Beach	212	31-Jul	-	0	0	468	0		Shaul	5,000 pinks at stream mouth
		218	6 6-Aug	-	8	6	1.425	0	6	Schwarz	
		224	12-Aug	-	6	€,	500	0	8	Schwarz	Lots of jumpers at stream wouth
		228	16-Aug	-	•	•	14,000	8	0	Shaul	25,800 pinks mear stream mouth
		535	20-Aug	-	0	9	42,400	•	0	Schwarz	5,428 pinks near stream mouth
		239	27-Aug	-	0	•	28, 666	9	. 0	Shaul	2,880 pinks at stream wouth
		250	07-Seo	-		0	8,900	0	0	Schwarz	Additional 14,600 pink carcasses
83-90.01	Swedania Point	212	31-Jul	-	8	0	58	0	6	Shaul	
		218	06-Aug	-	0	6	750	0	0	Schwarz	
		224	12-Aug	-	0		11,388	0	8	Schwarz	# AAA - (-)
		228	16-Aug	Poor	9	8	1,528	9	8	Shaul	7,000 pinks at stream mouth, Cherokee survey, turbulent
		535		-	0	-	18,900	e	8	Schwarz	4,500 pinks at stream mouth
		539	27-Aug	•	8		16,500	0		Shaul	5,000 pinks at stream mouth
		258	8 7-Sep	-	C	0	8.000	0	•	Schwarz	

Table SG 6 (continued)

Appendix J.1. (p 5 of 18)

Stream		Julian Calendar		Survey	Species					-	
Number 	Name	Day	Date	Condition	Chinook	Socreye	Pink	Chum	Coho		Remarks
283-80.16	Rallast Island	239	27-Auc	-		0	ę	8	0	Shaul	
		250	07-Sep	-	e	e	6	9	0	Schwarz	
293-80. 15	Coleman Creek	224	12-Aug	-	ě	ę	e	188	8	Schwarz	
		239	27-Aug	-	0	•	e	388	0	Shaul	3.000 chums at stream mouth
		250	07-Sea	-	₹	ę	6	18, 838	0	Schwarz	3,020 chums at stream mouth, additional 1,020 chum carcas
283-88.14	Johnson Creek	224	12-Aug	-	0	a	9	52	0	Schwarz	
		239	27-Aug	-	0	e	2.378	1,320	0	Shaul	9,000 churs at stream mouth
		250	07-Sep	-	6	6	7.570	6	6	Schwarz	Additional 2.803 carcasses
283-88. 12	Unnamed	250	07-Sea	-	9	9	650	8	9	Schwarz	
283-BP. 11	Monolith Point	239	27-Aug	-	2	8	366	6	6	Shaul	3.000 pinus at stream mouth
		250	07-Sep	-	6	9	1.570	9	8	Schwarz	200 pinks at stream mouth, additional 400 pink carcasses
283-80.89	Foster Creek	224	12-Aug	-	0	0	9	1, 125	0	Schwarz	
		828	16-Aug	-	9	0	1.200	8	0	Shaul	10,000 pinks at stream mouth
		239	27-Aug	-	0	0	12,480	2,000	9	Shaul	8,600 pinks and 2,500 churs at stream mouth
		250	0 7-Sep	-	0	6	3,000	500	8	Schwarz	Pdditional 18,800 carcasses
283-80.06	Lefthand Bay	224	12-Aug	-	. 0	•	6	260	0	Schwarz	15,000 chues in bay
		228	16-Aug	-	0	0	6.520	1,000	•	Shaul	1,000 churs at stream mouth, 2,000 pinks in bay
		239	27-Aug	-	9	168	5.000	1,700	ę	Shau1	2,500 pinks at stream wouth, 700 pinks and 200 churs in bi
		250	07-Sep	-	•	0	4, 666	5, 000	9	Schwarz	Additional 4,800 carcasses
83-80.06	Cape Aliaksin	218	06-Aug	-	9	0		8	•	Schwarz	
		224	12-Aug	-	0	0	35	0	8	Schwarz	
		232	20-Aug	•	e	0 '	1,000	0	8	Schwarz	6,400 pinks near stream mouth
		239	27-Aug	-	•	•,	2.788	0	8	Shaul	500 pinks at stream south
83-80.05	Cape Aliaksin	218	-	-		•	125	0	•	Schwarz	
		224	12-Aug	-	0	9	150	9	0	Schwarz	
		232	20-Aug	-	0	9	2,200	8	0	Schwarz	1,300 pinks rear stream wouth
		239	27-Aug	-	9	8	3,000	0	8	Shaul	300 pinks at stream wouth
83-80.04	Cape Aliaksin	218		-	9	8	8	•		Schwarz	200 pinks at stream south
		224	12-Aug	-			258	9	•	Schwarz	
		232	20-Aug	-	6		2,250	9	9	Schwarz	13,400 pinks near stream mouth
	*	239	27-Aug	-	6	8	6,300	9		Shaul	200 pinks at stream mouth

Appendix J.1. (p 6 of 18)

Stream		Julian	lian Calendar	Survey	Species					•	
Nunter	Name	Day	ay Date Co	Condition	Chinook					Observer	Remarks
282-13. 9 5	Unnamed	232	20-Aug	-	e e	0	ę	0	ę.	Schwarz	
LOC 10113	D		27-Aug	_	0	. 0	ē	ē	ė	Shaul	
			62- Sep		9	6	9	6	6	Schwarz	
282-13.04	Pinnacle Point	224	12-Aug	-	0	0	150	9	6	Schwarz	
		232	20-Aug	-	0	6	1.460	0	0	Schwarz	
		239	27-Aug	-	0	8	1, 636	0	e	Shau1	
		845	€5-Seo	Poor	0	8	125	6	e	Schwarz	Lots of carcasses
282-13. 03	Pay Point		31-Jul	-	9		1.000	200	•	Shaui	1,000 pinks and 4,500 churs at stream wouth
		518	•	•	0	•	12,656	8.830	9	Schwarz	858 pinks at stream mouth
			12-Aug		9		15. 656	4.656	6	Schwarz	
			20-Aug	-	e	e		7,000	0	Schwarz	6.000 pinks in the lagoon
		239	27-Aug	-	6	0	31,300	566	e	Shaul	2,500 pinks in the lapcon
282-13.02	Dry Lagoon	224	15-Ynā	Fair	6		6.510	9	0	Schwarz	1
		535	28-Aug	-	0	8	8.785	0	9	Schwarz	,
		239	27-Aug	-	8	9	3, 979	8	8	Shaul	
282~12 . 6 1	Coal Harbor		24-Jul	-	8	0	6	8	6	Schwarz	
		239	27-Aug	-	0	9	769	0	0	Slust	2.883 pinks at stream mouth
282-12.02	Zachary Bay	205	24~Jul	-	9	e		15	e	Schwarz	
		239		-	•	0	700	0	0	Shaul	
282-12.03	Zachary Bay	275	24-Jul	-	0		6	0	ė	Schwarz	
		212	31-Jul	-	0	0	0	0	0	Shaul	
		224	12-Aug	-	0	9	38	0	0	Schwarz	
		239	27-Aug	-	0	0	500	0	0	Shau1	
282-12.84	Zachary Bay	212	31-Jul	-	0		e	9	e	Shaul	
		224	12-Aug	-	0	0	50	6	0	Schwarz	
		535	20-Aug	-	. 6	0	1,780	0	0	Schwarz	Total of 15,600 pinks in Tachary Pay closed waters area
		539	-27-Aug	-	e	0	8	2,500	9	Shaul	
282-12.05	Zachary Bay	205		-	8	0	9	335	•	Schwarz	15 chums at stream mouth
			31-Jul	-	0	0	0	1,500	6	Shaul	Additional 578 thum carcasses, 6,678 pinks on the flats
		224	12-Aug	-	0	8	150	8	0	Schwarz	Additional 400 chum carcasses, 2,270 pinks at stream mouth
	•	232	20-Aug	•	6	e	6	0	0	Schwarz	
		239	27-Aug	-	9	. 0	2,200	0	0	Shaul	Additional 4.400 chum carcasses

Appendix J.1. (p 7 of 18)

S	tream	Julian	Calendar	Survey			Soecie	5		-	
Number	Name	Day	Date	Condition						Observer	Remarks
282-12.05	lachary Bay	205	24-Jul	-		e	ę	0	ę	Schwarz	
		212	31-Jul	-	0	6	9	0	9	Shaul	5.000 pinks on the flats
		455	12-Aug	-	ę	e	6	2	e	Schwarz	
			20-Aug	-	9	Ø	ð	6	e	Schwarz	
		239	ود۱۹-25	-	6	9	6		6	Shaul	
282-12. 87	Zachary Pay	285	24-Jul	-	6	6	ę	25	0	Schwarz	
		212	31-Jul	-	0	e	ଚ	9	0	Shaul	
		218	€6-Aug	-	0	9	8	e	9	Schwarz	25 malmon at stream mouth
		224	12-Aug	-	•	8	9	Ø.	9	Schwarz	
		232	56-bnā	-	6	0	0	0	0	Schwarz	
		539	27-Aug	-	ę	0	402	0	0	Shaul	200 churs at stream mouth
282-12. 88	Zachary Bay	295	24-Jul	-	9	ø	6	0	e	Schwarz	
		568	27-Jul	-	9	6	. 0	380	6	Shaul	
282-12.03	Zachary Bay	205	24-Jul	_	e	8	0	e		Schwarz	
	, ,	568	27-Ju!	-	0	6	556	6	8	Shau1	2,820 pinks at stream mouth
282-12, 10	Zachary Bay	205	24-Jul	-	9	0	9	e	e	Schwarz	
		258	27-Jul	-	0	0	400	8	0	Shaul	2.888 pinks at stream mouth
282-10. 18	Humbolt Ereek	247	84 -Seo	-	. 6	1	1,005	9	51	Schwarz	Sockeves and 14 pinks above the reservoir, most schooled at culvent, foot survey
282-10.16	Ben Green	212	31-Jul	-	e	0	e	e	0	Schwarz	200 pirks at stream mouth
	Right	218	₽6-Aug	-	0	0	85	0	e	Schwarz	520 pinks at stream mouth
	(The Farm)	224	12-Aug	-	0	6	120	8	8	Schwarz	
		558	16-Aug	-	9	6	1,277	\$	0	Shaul	5.020 pinks at stream mouth, 16.020 pinks rear stream mouth
		232	20-Aug	-	9	6	8, 600	6	8	Schwarz	2,620 pinks at stress mouth
		239	27-Aug	-	8	0.	3.829	6	6	5haul	8.000 pinks at stream routh
		248	9 5-Seo	-	6	6	4,920	e	8	Schwarz	Additional 1,520 carcasses
282-18, 15	Squaw Harbor	218	66-9a	-	0	e	25	9	0	Schwarz	2,200 pinks at stream mouth
		224	12-Aug	-	0	8	88	8	6	Schwarz	2,000 pinks at stream mouth, lots of jumpers in bay
		228	16-Aug	•	0	Ð	693	0	0	Shaul	40,020 pinks rear stream south
		238	18-Aug	-	e	0	9.000	0	9	Shaul	
		232	28-Aug	-	0	8	27.600	9	6	Schwarz	7.250 pinks at stream mouth
		239	27-Aug	-	0	0	33, 490	9	9	Shau1	8,800 pinks at stream mouth, additional few carcasses
		248	05-Sep	-	0	0	41,100	0	0	Schwarz	

Appendix J.1. (p 8 of 18)

St	ream	Julian	Calendar	Survey			5:00:10	s		-	
Vunber	Name	Day	Date	Condition	Chincok	Sockeye		Chum		Observer	Remarks
282-10.14	Squaw Harbor	212	31-Jul	-		e	0	8	9	Shaul	1.888 oinks at stream mouth
		224	12-Aug	-	0	9	0	6	0	Schwarz	
		232	20-Aug	-	0	0	5	8	0	Schwarz	2.828 oinks at stream mouth
		239	27-Aug	-	2	6	898	9	6	Shaul	300 pinks at stream mouth
		548	€5-5eo	-	ď	6	1.550	۴	6	Schwarz	
82-10.13	Baralof Lageon	239	27-Aug	-	e	102	0	9	e	Shaul	Sockeyes spawning
		248	62-2 63	-	e	6	0	6	6	Schwarz	Probable illegial fishing occurring
192-10.12	Unça Case	248	62- 253	-	8	ę	120	ę	ę	Schwanz	
	Stream										I
82-19.11	Delarof Harbor	212	31-Jul	_	ð	e	3	ę		Shau1	
		224	12-Aug	-	0	9	30	è	9	Schwanz	Many jumpers in the day
		858	•		0	0	ð	270	0	Shaul	Many jumpers in the flats
			28-A10		0	9	3.100	0	0	Schwarz	5,728 salmon at stream mouth
		239	,	-	8	0	8,423	ē	0	Shaul	2,828 pinks and 228 churs at stream mouth, 622 pinks and 12
					,	-		•	-		chums in the flats, some carcasses
		248	6 5-5eo	-	8	6	1.500	9	6	Schwarz	Additional 5.000 carcasses
82-10.10	Unnamed	248	€5-Sep	•	6	6	•	0	e	Schwanz	
82-10.04	Acheredin Lake	212	31-Jul	-	0	500	. 6	9	9	Shaul	Sockeye colored at head of the bay, poor escapement
DE 10101	System	224		-	ė	555	è	8		Schwarz	
	5,5,5,	535	-	-	é	1.000	258	6	0	Schwarz	
		239	•	-	0	1.900	0	0	6	Shau1	
	Ç.	248	05-Sep	-	ø	360	6	6	6	Schwarz	
A2~18. B3	Apollo Ereek	224	12-Aug	-	8	e	175	0	9	Schwarz '	
SC 10.03	Apollo Greek	232	20-Aug			ė	6,625	ē	9	Schwarz	525 pinks at stream mouth
		239	27-Aug		9	0	5,500	è	ė	Shaul	
		248	95-Sep	-	ě	ě	5.927	ě	ò	Schwarz	Additional warv carcasses
82-10.02	Acheredin Bay	224	12-Aug	-	6	0	556	8	0	Schwarz	
		232	20-Aug	-	0	ð	3,500	0	8	Schwarz	
		239	-	-	0	8	3,230	6	6	Shaul	A A A A A A A A A A A A A A A A A A A
		248	05-Sep	-	6	0	65₹	8	0	Schwarz	Additional 850 plus carcasses
82-11.06	Korovin Island	250	07-Sep	_	6	0	e	e	e	Schwarz	Stream mouth blocked by log jam

Appendix J.1. (p 9 of 18)

St	ream	Julian	Calendar	Survey	*****		Specie	*5		-	
Number	Name	Day	Date	Condition				ניולם	Coho		Remarks
A2-11. R3	Little Harbor	232	20-Au	-	6 .	0	500	е	0	Schwarz	4,520 pinks at stream mouth
	22772	233	27-Au	-	ě	ę	2.102	è	ò	Shaul	8,878 pinks at stream mouth
		250	-	-	ė	9	3.972		e	Schwanz	Additional 1.528 carcasses, 528 pinks at stream routh
282-11.01	Salmon Ranch	239	27-Aug	-	ę	9	488	ę	ę	Shaul	3,822 pinks at stream mouth and 522 pinks rear stream mou
		250	0 7-5eb	-	6	9	233	ę	e	Schwarz	
JUTHCENTRO	L DISTRICT										
283-70.05	Beaver River	228	16-Aug	-	ø	e	3. 300	4,322	e	Shau1	
		539	27-Aug	-	0	۶	31,177	5.828	e	Shau1	
283-70.04	Smiley's Creek	212	31-Jul	-	0	ę	100	0	8	Sharil	IRP pines at stream mouth
		218	€6-Aug		e	0	250	e	9	Schwarz	
		232	20-Aug	-	9	9	12,570	6	6	Schwarz	4,000 pinks at stream mouth
		533	27-Aug	-	ø	ø	11.970	8	8	Shaul	1.000 pinks rear stream mouth
83-70.03 McGinty Po	McGinty Point	212		-	e	0	169	ę	8	Shaul	
		518			e	0	3. 235	9	8	Schwarz	
		535	-		6	0	23.675	6	0	Schwarz	
		239	27-Auç	-	9	0	10.470	e	6	Shaul	Good escapement
283-70.02	East of Mino	212		-	0	•	2.428	9	0	Shaul	
	Creek	535	•	-	9	8	42,928	8	8	Schwarz	Excellent escapement
		238	26-Aug	-	0	e	33.200	6	9	Shaul	Excellent escapement, area needs rain
283-70.01	Mino Ereek	192		-	0	9	469	1.020	6	Shaul	Salmon in lower mile of stream
	;	207	1rt-85	-	0	e	10.000	4.100	0	Shaul	Salmon below forms, species identification difficult
		212		-	0	-	19,588	0	0	Shaul	Of which 17,528 were below E fork
		523 818	,		8	8	51,500 237,000	9	0	Schwarz Shaul	Poor light conditions, 38,888 in A and F above E fork, 6,838 in E fork
		232	29-0	Excellent	0	a	153, 400	e	6	Schwarz	No carcasses
		238	-		0		112,650	•	6	Shaul	300 sockeyes in F lake, 150 sockeyes in D lake
283-62.65	Coal Bay	192	11-Jul	-	•	0	100	0	e	Shau1	
·· ·	,	207	26-Jul	-	0	ø	2,300	0	0	Shaul	700 pinks at stream mouth
		212		-	9			0	0	Shau1	Bon't survey into the canyon, dangerous
		218		-	0	ė		0	ě	Schwarz	250 pinks at stream mouth
		253			0	0	30,000	ē	8	Shaul	5,880 pinks at stream mouth
		232	20-Aug		ė	õ	56, 100	ē	ě	Schwarz	1,500 pinks near stream mouth
		238			0	8	39,700	è	ě	Shau1	3,820 pin's at stream mouth

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Appendix J.1. (p 10 of 18)

	tream	Julian	Calendar	Survey			Sperti	·5			
Kumber	Name	Day	Date	Condition	Chinook			Chum		Observer	Remarks
283-62. 04	Coal Pay	207	26-Ju1	-	0	e	700	0		Shaul	200 pinks at stream mouth
	•	218	06-Aug	-	0	0	950	0	9	Schwarz	200 pinks at stream mouth
		223	11-Aug	· -	9	0	3,200	9		Shaul	
		232	20-Aug		9	e	16,500	0	0	Schwarz	1.520 pinks near stream mouth
		238	26-Aug	-	8	0	15.500	0	9	Shaul	688 pinks at stream wouth
83-62.03	Coal Bay	238	26-Aug	-	•	8	688	0	•	Shaut	
:83-62. 02	Coal Bay	238	26-Aug	-	0	0	1,200	0	•	Shaul	
83-63.16	Settlement	192	11-Jul	-	e	e	150	0	0	Shaul	1
	Point	284	23-Jul	-	0	0	2,890	9	0	Shaul	
		207	26-Jul	_	8	8	11,300	8		Shaul	3,300 pints above forks
		211	30-Jul	_	0	0	22.000	. 0		Shau1	
		218		600d	9	0	65,600	9	0	Schwarz	
		223	11-Aug	Fair	0	8	96,000	0	0	Shaul	2,000 pinks at stream mouth
		238	26-Aug	-	0		134, 000	2,000	0	Shaul	300 pinks and 200 churs at stream mouth, 14,700 pinks abo fork, 54,000 pinks below fork
007_67 15	Middle Creek	192	11-Jul	_	0	0	e	0	0	Shaul	100 Dolly Varden in first 200 yards of stream
03 03.13	FILEDIE CIEEK	204	23-Jul		0	0	300	9	9	Shaul	100 at falls, remainder in first 200 yards of stream
		207	26-Jul	-	0	9	3,500	0	ě	Shaul	500 in fork
		211	30-Jul	Fair	0	6	3,000	ě	8	Shaul	260 In 107 K
		218	06-Aug	-	9	0	23,200	0	0	Schwarz	200 pinks at stream mouth
		223	11-Aug	Good	ę	ě	45, 000	8	0	Shaul	1.000 pinks at stream mouth, 4,000 in fork
	ž	238	26-Aug	-	ø	6	59,000	8	ø	Shaul	Excellent escapement, 6.000 in fork, area needs rain
83-64, 19	Ness Creek	115	30-Jul	_	0	0	50	8	0	Shaul	
		223	11-Aug	Fair	0	0	0	0	0	Shaul	
		239	27-Aug	•	6	€.	1,000	9	e	Shaul	4,800 pinks at stream south
83-64.09	Unnamed	533	27-Aug	=	6	•	0	300	•	Shaul	Additional 300 carcasses
83-64.88	Entrance Creek	511	30-Jul	-		9	588	•	9	Shaul	
		218	06-Aug	Good	0	9	1,900	8	0	Shaul	3,000 pinks at stream mouth
		223	11-Aug	Foor	9	9	1,103	0	0	Shaul	Partial survey, surveyed above cutbank only
		228	16-Aug	-	9	9	5.000	8	0	Shaul	5-10,000 churs at stream mouth
		239	27-Aug	_	0	0	10, 300	0	0	Shaul	5,000 pinks at stream mouth

Appendix J.1. (p 11 of 18)

St	ream	Julian	Calendar	Survey			Speci	25		-	
Number	Name	Day		Condition	Chinock	Sockeye	Fink	Ըրստ	Coho	Observer	Remarks
283-64.05	Caroe Pay River	187	6 5-Ju1	<u>-</u>	6	8	6	269	e	Shaul	2,200 churs in closed waters above stream quard cabin, 4-50 near cabin and Entrance Creek
		192	11-Jul	Poor	9	180	0	600	6	Shaul	
		285	24-Jul	Fair	6	0	6	16,528	6	Iver?	Visibility poor in Inner Caroe Pav
		287	26-Jul	Excellent	0	0	9	11.122	8	Snaul	15.50% churs in Inner Cance Pay
		212	31-341	cair	8	650	ę	27.020	9	Shaul	Visibility poor except near Bluff Creek where 18,878 proms were observed
		230	18-6aá	-	9	366	6	59, 606	9	Shaul	Additional 7.000 churs in Inner Cance Bay, eany carcasses, rothing in Four Bears Creek, 10.000 churs at stream mouth
		539	27-Auç	-	8	700	9,500	45, १३१	0	Shaul	
283-64. 85	Bluff Point	223	11-Aug	Goed	0	0	0	7₹€	0	Shaul	1,880 chums at stream mouth
	Ereek	228	16-Aug	-	ę	6	1.270	1,770	6	Shaul	10.000 chums at stream mouth
		230	18-Aug	-	0	6			6	Shau1	Partial survey of stream mouth only, 13,000 chums at stream mouth
		239	27-Aug	-	0	8	7,420	1,820	0	Shaul	5,520, churs at stream mouth
283-63.14	Dry Lagoon	538	26-Aug	-	. 0	6	ę	200	0	Shaul	100 of the maimon in lagoon
283-63.13	Ruby's Lagoon (Jackson's Lag	238 000n)	26-Aug	-	e	9	0	5,586	0	Shau1	4,600 of the salmon in Japon
283-63.11	Chinaman Lagoon North	238	26-Aug	-	8	ę	, ,0	2.070	•	Shaul	All in lagoon
283-63. 10	Chinaman L∂goon Center	238	26-Aug	-	0	ø	0	168	e	Shaul	18.ਵਿੱਚੋਂ chu∞s at legoon wouth
283-63. 89	Unnamed	238	26~Aug		0	8	0	0	0	Shaul	
283-63.06	Chinaman Lagoon South	238	26-Aug	-	0	e `	0	800	6	Shaul	
283-63.06	Chinaman Lagoon Lower	238	26-Aug	-	0	6	6	500	6	Shaul	Salmon spanning
283-63.84	Unnamed	223	11-Aug	_	8	e	e	300	8	Shaul	Surveyed lower 300 yards of stream
		238	26-Aug	-	ě	0	0	5, 200	0	Shaul	·
283-61.95	Long John	251	0 8-Sea	-	0	0	e	e	100	Shaul	100 cohes and many smalls in lagoon
	Lagoon	254	11-Sep	-	e	0		9	700	Shaul	

Appendix J.1. (p 12 of 18)

	trean	Julian	Calendar	Survey			5peci	62		-	
Number	Name	Day	Date	Condition	Chinook	Sockeye	Fink	Chum	Coho	Observer	g _{emanks}
283-61.84	Long John Lagoon	207	26-Ju!	-	9	1.228	0	e	e	Shaul	322 were in pothole by cabin, most spawning
283-61.03	Long John Lagson	254	11-Sep	-	6	6	289	e	8	Shaul	
283~61.02	Long John	223	11-Auc	_	9	ę	e	1.422	0	Shaul	Additional 228 churs in cothole
	Lagoon	234		-	e	6	e	1.820		Shaul	Additional 2,000 chum in pothole and 7,000 churs in lageon
		252		Foor					_	Schwarz	Partial survey of lagoon only, 2,100 churs in lagoon
		254		-	8	ş	9	5,690	ę	Shaul	Additional 1,828 churs in pothole and 1,828 churs in lacoor some may have been pinks
SOUTHWESTER	N DISTRICT										
283-52.18	Dushkin Lagoon	252	09-Seo	-	0	e	e	0	9	Schwarz	÷
283-52.08	Volcano River	230	18-A-10	•	9	e	e	1.000	8	Shaul	18,883 churs at stream mouth, jumpers in bay
		234	22-Aug	•	e	0	100	2.723	8	Shaul	6.000 chums at stream mouth, 22,000 chums between stream mouth and Dushkin's Lapcon
		238	26-Aug	-	0	9	100	4,900	0	Shaul	12,000 churs at stream mouth, 23,000 churs between stream mouth and Dushkin's Lagoon
		250	07-Sea	-	0	6	700	35, 279	0	Shaul	Cherokee survey
		252	0 9-Sep	Foor	6	9	. •	32,000	8	Schwarz	Turbulent
283-52.97	Volcano Center	223	11-Aug	~	e	0	9	980	e	Shaul	
	Sloughs	238	18-Aug	-	6	8	e	269	9	Shaul	15,000 churs at stream mouth
	, -	234	22-Aug	-	8	0	9	1.220	0	Shaul	25.000 churs at stream mouth
		238	26-Au	-	0	0	520	1,000	0	Shaul	18.000 churs at stream wouth
		250	07-5ep	-	e	0	0	11.000	0	Shaul	Cherokee survey, 15,000 churs at stream mouth
		252	09-Seo	-	0	0,	350	17, 100	•	Schwarz	4.020 pinks and chums on flats
283-52.06	West	223	11-Aug	-	0	0	0	16.9	9	Shaul	
	Springholes	230	18-Aug	-	9	0	100	166	6	Shaul	3.888 chums at stream mouth
	-	234	22-Aug	-	6	0	0	1.400	. 0	Shaul	1,020 pinks and 520 grums at stream mouth
		238	26-Aug	-	€ .	6	422	900	0	Shaul	3,000 churs at stream routh
		250	07-Sep	-	0	0	3.500	1,500	e	Shaul	9,000 chums at stream mouth
		252	6 9-Seo	-	0	Ø	4,500	2,400	0	Schwarz	
283-52. 05	Streamguard Creek	252	09-Sep	-	e	6	650	•	•	Schwarz	

Table SG 6 (continued)

Appendix J.1. (p 13 of 18)

5	ream	Julian	Calendar	Survey			Specie	5		-	
Number	Name	Day	Date	Condition						Observer	Remarks
283-52, 94	Stub Cr ee k	234	22-Pua	-		e	ę	ę	e	Shaul	378 pinks at stream mouth
	J. 4.		63-Sep	~	8	e	120	ę	ø	Schwarz	THE MILES OF STREET HOST!
283-52. @3	Little Bear	223	11-Aug	-	e	e	ę	e	e	Shau!	
	Bav	č34	22-Auc	-	9	0	6	165	9	Shaul	
		252	03-Sep	-	₹	٩	ŕ	298	6	Schwarz	1,600 chuns at stream mouth
283-52. 81	Nikolaski Spit	515	31-Jul	-	9	0	6	ę	e	Shaul	
		223	11-Aug	-	9	e	555	9	9	Snaul	
		230	18-A.g	-	e	e	553	ę	e	Shaul	2,520 pinks at stream mouth
		533	27-Rug	-	9	6	1.420	6	9	Shaul	Foon escapement, water level very low
		253	63 -595	-	3	e	555	8	ę	9спнача	
283-51.65	Polgoi Harbor	553	11-Aug	-	ę	0	353	e	e	Shaul	
	Southwest	230	18-Pug	-	9	e	1.622	ę	8	Shaul	300 pinks at stream mouth, 4,000 pinks along west beach
		533	ور،٩-27	-	9	e	7,728	6	6	Shaul	400 pinks at stream mouth. 900 pinks along montheast toact good escapement
		252	€9-5ep	-	6	6	125	e	6	Schwarz	·
283-51.85	Dolgei Parbor	233	27-Auc	-	e	8	200	e	9	Shaul	500 pinks at stream mouth
	South	252	63-260	-	6	P	25	ě	9	Schwarz	Additional 58 rancasses
293-51.03	Dolgoi Harbor	239	97-A-15	-	P	ę	328	¢.	6	Shaul	500 pinks at stream mouth, 1.300 pinks in the or west side of harbon
		252	83-Sep	-	6	e	58	e	8	Schwarz	
283-41.91	Palkofski	207	26-Jul	-	0	9	178	8	9	Shaul	50 pinks at stream mouth
	Village	212	31-Jul	-	6	8	603	0	0	Shaul	
		218	05-Aug	-	9	0	3.500	6	0	Shaul	Partial survey of lower 2 miles of stream
		223	11-Aug	-	0	₽.	8. 618	e	0	5hau1	Of which 6,870 were in lower mile of stream
		230	18-Aug	•	8	9	13. 070	397	6	Shaul	528 pinks at stream mouth, churs in upper portion of streamost pinks in lower portion
		239	27-Ruo	~	9	e	8,528	0	ė	Shaul	2,520 pinks were scanning
		252	89-Sep	-	0	8	6.656	e	e	Schwarz	Additional few carcasses
283-42, 12	Rocky River	207	26-Jul	-	ę	e	166	e	e	Shaul	108 pinks at stream mouth
	,	212	31-Jul	-	e	0	169	. 0	0	Shaul	
		218	6 6-Aug	-	0	é	1.020	9	0	Shaul	500 pinks at stream mouth
		223	11-Aug	-	0	9	1,300	9	6	Shaul	320 pinks at stream mouth
			18-Pug	-	6	ø	3,520	s	0	Staul	820 pinks at stream mouth
			27-Pug	-	P	0	2,828	9	e	Shaul	220 pinks at stream mouth, boon escapement, reeds main
			03-5ep	-	9	0	1, 928	e	e	Schwarz	

Appendix J.1. (p 14 of 18)

St	ream	Julian	Calendar	Survey			Speci	.s		•	
Number	Name	Day	Date	Condition	Chirock	Sockeye	Pink	Chuir	Coho	Observer	Remarks
293-42, 18	Kitchen -	553	11-Pug	-	8	e	57	a	ø.	Shaul	2,810 pines near stream mouth
	Anchorage	230	18-440	•	6	ě	400	6	9	Shaul	E. 222 pines at stream mouth. 7,222 pines rear stream mouth
	•	239	27-Aug	-	0	9	3, 320	9	6	Shaul	13.020 pinks at stream mouth
		252	69-5 9 0	Foor	ē	ð	3,428	8	9	Schwarz	4.838 bines at stream mouth, turbulent
283-42,63	Captain's	223	11-ft-11	-	8	e	ě	9	6	Shaul	25.200 churs in harbor
	Harbon	233	27-Pug	-	9	ø	200	2	6	Shaul	1.870 pinks at stream mouth, Ich water level, reed mair
		252	₹3~5eo	-	8	P	420	6	0	Schwarz	Additional 488 carcasses
283-42.07	Belkofski Bay	223	11-Aug	Foor	ę	0	6	976	9	Shaul	Partial survey above 1st tributary
	River	238	18-Aug	Excellent	٤	0	e	4.230	9	Shaul	9.020 chuns at stream mouth, 30.000 churs in Captair's Harbi
		525	83-Seo	-	6	6	6	51,300	6	Schwarz	Excellent escapement
283-42.06	Pelkofski Pay	223	11-Aug	-	e	0	ð	0	0	Shaul	
	Beach	230	18-Aug	-	e	0	565	9	6	Shaul	
		252	03-Seb	-	0	0	366	0	6	Schwarz	
291-12 05	Belkofski Bay	218	e6-Aug	_	e	e	200	9	6	Shaul	1
CD5 /C165	West	223	11-Pug		è	è	1.100	ě	P	Shaul	
	re31	230	18-Aug	-	ě	0	1.822	è	è	Shaul	326 bin/s at stream mouth, 3,222 binks rear stream mouth
		234	-	Excellent	ě	ē	1.920	è	ě	Shaul	172 pines at stream mouth
		252	-	•	6	8	1,620	6	e	Schwarz	
207-42 07	Indian Head	230	18-Aug	_	ę	e	. '	Pi	0	Shaul	202 pinks at stream mouth
100 -1.10	s.ozan neus	233	27-Aug	-	e	0	588	9	è	Shaul	188 pirks rear stream mouth, very low water, needs rain
	,	251		-	6	9	950	0	é	Schwarz	Additional few carcasses
283-33. 05	Ram's Creek	223	11-Aug	-	0	ē	300	0	0	Shaul	
		230	18-9ug	-	0	0	468	9	0	Shaul '	
		233	27-A-19	-	0	€,	1,700	9	6	Shaul	500 pinks at stream mouth, fish passage blocked at culvert due to low water conditions
		251	08-5ep	Fair	6	ę	3.100	0	8	Schwarz	Additional fair number of carcasses, good escapement above culvert turbulent
283-33. 04	King Cove Lagoon	251	08-Sea	-	0	e	e	75	0	Schwarz	Additional 200 carcasses
283-33. 63	King Cove West	244	01-Seo	_	ð	. 6	ð	ø	9	Schwarz	

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51	ream	Julian	Calendar	Survey	******		Specie	5		-	
Number	Name	. ,		Condition						Observer	Perarus
93-31.01	Fox Island	207	25-Jul	-		e	ę	ę	ę	Shaul	628 pinks at stream mouth
	Anchorage East	212	31-Jul	-	9	ø	428	6	0	Shaul	Salmon in lower 120 yards of stream
		218	0 6-Aug	+	0	0	188	6	9	Shaul	1,820 pinks at stream mouth
		223	11-Aug	-	ð	0	3.300	0	ę	Shaul	,
		230	18-Aug	-	8	9	7, 238	9	9	Shaul	
		239	27-Aug	_	9	9	8.232	6	e	Shaul	788 cin's at stream mouth
		251	€9-Sep	Fair	0	6	1.350	ę	•	Schwarz	Additional many parcasses, difficult to see due to can substrate
A3-31.A2	Fox Island	227	26-Jul	_	9	8	ę	. 6	6	Shaul	
.00 31.12	Arichorage	212	31-Jul	_	ě	è	ě	è	è	Shaul	
	Center	218	e6-Aug	-	è	à	ě	ē	à	Shaul	
		223	11-Auc	_	è	ē	ę	Ò	è	Shaul	
		230	18-Aug		0	2	ę	e	0	Shaul	
		239	27-Aug	-	e	8	700	9	0	Shaul	100 pinks at stream wouth
		251	,	-	0	ę	159	8	8	Schwarz	Additional many carcasses, difficult to see oue to car substrate
83-31.03	Fox Island	207	26-Jul	_	0	8	9	ę	0	Shaul	188 oines at stream mouth
	Anchorage West	212	31-Jul	-	0	6	6	e	ø	Shaul	
	•	218	P6-Aug	-	0	0	2.528	6	e	Shaul	
		223	11-Aug	-	•	ě	8:838	ě		Shaul	2.000 pinks at stream mouth
		230	18-Aug	-	0	9	5.122	e	6	Shaul	
		239	27-Aug	-	e	9	4.320	6	9	Shaul	420 pinys rean stream mouth
		251	68-250	-	e	8	1.939	6	8	Schwarz	Additional A.822 carcasses
83-31.05	: Deer Island	212	31-Jul	-	e	e	e	9	e	Shaul	
		218	86-Auç	-	6	0	166	ď	e	Shaul	
		533	27-Aug	-	9	9	855	8	8	Shaul	Poor escapement
		251	08-Sep	•	9	₹,	450	6	6	Schwarz	Additional 2.828 carcasses
83-31.06	Southern Creek	207	26-Jul	-	6	0	2,600	•	9	Shaul	
	•	212	31-Jul	-	0	e	5.820	6	6	Shaul	SCO pines at stream wouth
		218	6 6-Auó		0	e		6	0	Shaul	1.200 pinks at stream wouth
		223	11-Aug	-	0	0	43, 620	9	0	Shaul	·
		536	18-Aug	-	0	9		0	0	Shaul	
		239		•	0	0	50.500	0	0	Shaul	
		251	Ø8−Seo	-	P	0	21,200	0	8	Schwarz	Additional large number of carcasses

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	tream	Julian	Calendar	Survey	*****		Speci	P5		-	
Number	Name	Day	Date	Condition	Chinoek	Sockeye	Pink	לייניל)	Eoho	Observer	Detarks
283-31.10	Eastern Creek	207	26-Jul	-	e ·	0	400	e	9	Shaul	200 pinks at stream routh
		212	31-Jul	-	9	9	2,978	6	6	Shaul	222 pinys at stream mouth
		218		-	?	6	9.822	e	0	Shaul	1.500 pinks at stream mouth
		223	11-Auc	-	0	e	17.700	e	e	Shaul	
		230	18-Aug	-	0	ð	13,020	6	e	Shaul	2.000 pinys at stream wouth
			27-Aus		a	9	11.020	ę	6	Shau!	220 minks at stream mouth
		251	69-5ep		e	e	278	e	e	Schwarz	Additional 4.878 cantaises
283-34.11	Lenard Harbor South	533	27-Aug	-	e	P	5?	ð	ę	5haul	320 pinks at stream mouth
2B3-34, 1P	Lebard Harbon	228	18-000	Poee	ę	ę	٤	1,278	e	Shaul	Good showing of fish in bay
	Main	234		-	ż	e	378	2.7.0	•	Shaul	2.422 chims on flats
		250		_	Ø	ě	3. 8.28	12.228	ę	Shaul	Cheroken survey
		251		-	ę	ş	6	15.828	è	Schwarz	Good chum distribution and escapement
בש בר ברם	Barney's Creek	223	II-Aug	_	0	e	:00	e	0	Shaul	
.03.34,61	Danney & Creek	230	18-Auc	-	ę	à	465	è	ě	Shaul	200 pinks and 1.020 churs at stream wouth
		251			6	e	2.720	ę	é	Schwarz	258 pin's at stream mouth
		EJI	£0-550	-	ť	U	2.780	•	•	SC IMAI'E	Cue gines at stream mouth
183-34. 67	Kinzarof Lagoon	236	24-Aug	-	0	872	0	858	•	Shaul	
203-34.06	Kinzarof Lagoon	236	24-Aug	-	6	1,420	- 6	e	0	Shaul	
203-34.05	Kinzarof Lagoon	236	24-Aug	-	8	75 V	ę	ę	6	Shau!	
283-34. 83	Trout Creek	236	24-Aug	-	ę	15€	e	720	e	Shaul	Of which 320 churs below bridge
83-34. 82	Russel Creek	192	11-Jul	-	e	ė	e	1,100	e	Shaui	Sockeyes near hatchery, chums in lower portion of creek
		284	23-Jul	-	0	e	e	1,900	8	Shaul	1,828 churs below crossing, poor escapement
		211	30-Jul	-	e	0	e	10,000		Shaul	8.800 chums below hatchery, fair escacement
			21-Aug	-	9	798	320	32,000	9	Shaul	1,800 churs at stream mouth
			03 -Sep	-	0	6		24, 420	•	Schwarz	Fair escapement, some additional carcasses
83-34.61	Mortensen	234	22-Aug	-	6	550	e	6	e	Shaui	200 sockeyes at creek wouth, 300 spawning in creek
	Lagoon	240	28-Aug	•		800	•	e	6	Shaul	Partial survey, creek only, sockeyes spaining, 2,866 sockeyes at stream mouth
		250	07-Sep	•	e	2,200	0	0	8	Shaul	Partial survey of creek only, 500 sockeyes at stream mout
		259	16-Sep	-	6	3,200	e	0	0	Shaul	200 sockeyes in Take, 3,000 sockeyes in creek, all fish spawning
		271	28-5ep	Poor	e	e	8	9		Shaul	eemmeng.

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Appendix J.1. (p 17 of 18)

St	rese	Julian	Calendar	Survey	~~~		Soecie	5		•	
Number	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Renarks
283-32.01	Old Man's	284	23-Jul	_		6	ø	2,200	0	Shaul	200 in creek remainder at creek mouth
	Lagoon	234	22-Aug	-	0	8		3, 800	0	Shaul	Many additional carcasses
283-29. 26	Thin Point	192	11-Jul	-	9	0		0	9	Shaul	
	Lagoon &	204	23-Jul	-	0	800	0	. 0	0	Shaul	Partial survey of lagoon only
	Entrance	234	22-Aug	-	9	6		8		Shaul	Fish must have been taken for subsistence or moved into lai
		240	28-Aug	_	9	260	8	0	200	Shaul	Junoers in lagoon
		271	28-Sep	-	0	0	9	9	400	Shaul	All in east arm of lagoon, none in lower portion of lagoon
283-20.08	Thin Point	240	28-Aug	-	0	0		0		Shaul	708 sockeyes at stream wouth
	West	251	08-Sep	-	9	500	0	8	8	Schwarz	•
283-28. 09	Thin Point	234	22-Aug	-	e	300		. 0	8	Shaul	878 sockeyes at stream mouth
	Lake Stream	249	28-Aug	-	9	300	0	· 0	0	Shaul	2,000 sockeyes at stream mouth, scanning in stream
		251	08-Sep	-	6	3,000	. 0	0	6	Schwarz	
283~20.10	Thin Point	240	28-Aug	-	0	3,400	8	0	0	Shaul	2,200 sockeyes spawning, south shore of lake muddy due to make action
		251	0 8-Sep	-	e	5,200	8	6 .	0	Schwarz	
283-29. 64	Southwest	218	0 6-Aug	-	0	0	200	0		Shaul	
	Bight	234	22-Aug	-	. 0	9	1,200	0	0	Shaul	200 pinks near stream mouth
	•	251	68-Sep	-	8	0	520	8	•	Schwarz	Additional 500 carcasses
283-28.83	Verskin's	218	66-Aug	Fair	8	9	1,500	0	8	Shaul	Cherokee survey
	Bight	553	11-Aug	Poor	8	0	300	0	0	Shaul	
	1	234	22-Aug	Excellent	8	0	5, 700	9	9	Shaul	
		251	0 8-Sep	-	0	0	100	0	0	Schwarz	Additional 4,000 carcasses
283-20.01	Sandy Cove	218	06-Aug	-		0	8	1,500		Shaul	
		234		Excellent	0	8	200	11,300	9	Shaul	4,800 churs at stream wouth
		251	08-Sep	-	6	8	0	49, 800	•	Schwarz.	Excellent escapevent
283-11.01	Egg Island	818	66-Aug	-	0	0	100	0	6	Shaul	
		223	11-Aug	-	0	8	100	6	0	Shaul	
		234	22-Aug	-	9	0	1,200	366	0	Shaul	
		251	8 8-5ep	-	0	0	600	0	0	Schwarz	
283-12.13	Little John	218	06 -Aug	-	0	e	400	8	8	Shaul	7 800 about at about mouth additional 500 about to lance
	Lagoon - C	234	22-Aug	-	8	4	266	2,300	0	Shaul	7,000 churs at stream mouth, additional 500 churs in lageon Good escapement
		250	07-Sep	•		0	•	22,000	0	Shaul	
		251	08-Sep	-	0	0	•	20, 100	9	Schwarz	Additional few carcasses

Appendix J.1. (p 18 of 18)

St	ream	Julian	Calendar	Survey			Specie	5		-	
Number	Name	Day	Date	Condition	Chirook	Sockeys	Pink	Cham	Coho	Observer	Remarks
283-12.12	Little John Lagoon Spit	250	87-Sea	-		. 0	0	9	8	Shaul	500 chums at stream wouth
283-12.11	Cannery Creek	250	0 7-Sep	-	ę	0	6	60	e	Schwarz	
283-12.85	Middle Lagoon	187	11-Jul	_	0	20	9	ŧ	Ð	Shaul	50 sockeyes at stream wouth
		192	23-Jul	_	0	600	9	e	ě	Shaul	SO SOCIETES OF STREET BOULD
		200	29-Jul	_	é	4,500	ě	9	ě	Shau1	Dankiel communication and the same and a make
		555	07-Aug	-	é	1,820	ě	ě	0	Shaul	Partial survey of lower 1/2 mile
			-			•		_			800 in lower portion of lagoon, 1,000 at wouth of outlet stream
		257	11-Sep	Poor	0	7,000	9	9	0	Shaul	Cherokee survey of lake and outlet only, excellent escapemen
283-12.01	Hansen's Creek	217	31-Jul	-	9	0	8	ė	0	Shaul	
		222	28-Aug	-	0	25	400	8	8	Shaul	300 pinks at stream mouth, fish in the creek are spawning
284-60.08	Deadwan's Cove	200	07-Aug	-	0	0	1,000	9	0	Shaul	
		217	28-Aug	-	0	300	1,600	0	0	Shaul	Of which 200 pinks spawning
284-60.07	Whalebone Bay	299	11-Jul	-	0	1,100	e	0	e	Shaul	Sockeyes in middle of lake turning color
		555	28-Aug	-	e	100	580		0	Shau1	200 pinks below lake, 300 pinks above lake, 100 sockeyes schooled in lake
284-68.86	Sankin Bay	222	31-Jul	-	0	e	- 50	0	0	Shaul	
ed, build	Summer Day	244	25-Aug	-	8	ø	100	ě	8	Shaul	Salmon in lower end of stream
			20		•	•	•••	•	•	0.1941	Service in Jones 410 OI 311 Cam
284-60.05	Whirl Point	210	31-Jul	-	6	8	20	9		Shau1	
		555	25-Aug	-	0	0	1,000	0	0	Shaul	1,020 pinks at stream mouth
28 63-180	Swede's Lake	288	11-Jul	_	9	263	0	9	0	Shaul	
207 00104	Direct & Carre	555	25-Aug		ě	400.	ě			Shaul	168 pinks at stream wouth
18 A3A8C	Ikatan Point	217	25-Aug	_		0	200	8		Shaul	Pinks in lower portion of stream
104 00.01	IRACAN POINS	L 1 7	ES Aug		v	٠	200	·		51441	Palitie and Total Boyeston or Division
VIMAK DIST	RICT										
284-40.09	Otter Cove	217	31-Jul	-		8	e	100	8	Shaul	
	North	555	25-Aug	-	0	0	200	100	8	Shaul	
284-40.08	Otter Cove-	217	31-Jul	-	0	0		100	0	Shaul	
	South	555	25-Aug	-	8	0	100	0	0	Shaul	
284-40. 05	Lazaref	244	25-Aug	-	0	•	0	200	•	Shau1	take does not appear able to produce significant return, chues in west fork of river

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Appendix J.2. Salmon escapement survey counts in the Aleutian Islands Management Area, 1987.

5	tresm	Julian	Calendar	Survey			Species				
unber	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Rewarks
ialaska d	ISTRICT										
182-88. 52	Kuliliak Lakes	232	09-Sea	-		100	8	0	e	Shaul	
182-48. 11	Morris Cove	251	08-Sep	-	9	25	6	0	9	Shaul	•
102-40.10	Humpy Cove (Summer Bay)	251	08-Sep	-	0	•	700	0	0	Shaul	Very poor escapement, evidence of habitat damage from Nov. 1985 flo
182-40. 89	Summer Bay Lake	. 251	08-Sev	-	0	1,000	0	8	0	Shaul	
02-40.08	Umalaska Village	251	08-Sea	-	0	400	7,100	. 0	0	Shaul	Additional 7,100 pink carcasses, good escapement (6,000 pinks) bel lake, poor above
182-40.86	Captain's Bay	254	11-Sep	-	6		688	0	0	Shaul	Poor escapement, evidence of habitat dawage from Nov. 1985 flood
102-40.05	Nateekin River	251	08-Sep	-	. 6	6	19,000	8	9	Shaul	Poor escapement
102-40.03	Makushin Valley	251	08-Sep	-	0	0	4,000	0	8	Shaul	Very poor escapement
102-15.07	McLee's Lake	252	09-5ea	-	6	689	8	0	9	Shaul	Additional 900 carcasses
102-13.10	Volcano Bay	252	09-Seo	-	0	3, 100	. 0	0	50	Shaul	1,888 cohos in bay
182-14.28	Makushin Village	252	89-Sep	-	8	ð	50	0	8	Shaul	
102-14.18	Glacier Valley	252	09-Sep	-	0	0	500	0	0	Shaul	
382-14.17	Humpback Bay	252	09-Sep	-	0	6 ·	700	0	8	Shaul	
302-14.16	Humpback Bay	252	09-Sep	-	0	0	2.000	e	0	Shaul	Very poor escapement
302-14.14	Humpback Bay	252	0 9-Sep	-	0	0	0	0	6	Shaul	
382-14.11	Cannery Bay	252	09-Sep	-	9	0	1,275	269	8	Shaul	Additional 425 pink carcasses
382-13.85	Skan Bay	252	89 -5ep	-	0	0	300	0	0	Shaul	

51	rese	Julian	Calendar	Survey	*******		Species				
Nusber	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Remarks
382-13.04	Skan Bay	252	09-Seo	-	0	0	500	6	e	Shaul	Lake appears sterile, no sockeye present
302-13.03	Skan Bay	252	0 9-Seo	-	e	0	50	•		Shaul	Only 50 feet of stream habitat
302-12.11	Pumicestone Bay	252	09~Sec	-	0	ø	2.200	0	•	Shaul	Additional 400 pink carcasses
302-12.09	McIver Bight	252	0 9-5eo	-	. 0	0	269	•	0	Shaul	
302-12.07A	Kashega Lake . West	252	0 9-Sep	-	0	1,100	300	0	6	Shaul	Pinks in outlet, excellent pink escapement, poor sockeye escapement
302-12 .0 7B	Kashega Lake East	245	09-Sep	-	6	1,900	13,650	0	•	Shaul	Pinks in outlet, excellent bink escapement, door sockeye escapement
302-12.04	Kismaliuk Pay	245	09-Seo	-	0	6	500	300	188	Shaul	Species identification of cohos questionable
302-12.03	Kismaliuk Bay	245	09-Sep	-	0	0	700	100	•	Shaul	i.
302-11.08	Chernofski Harbor	245	09-Sep	-	0	0	1,500	300	488	Shaul	

(1) 大学 对一类类型对抗。 (2) 解解等 (3) (3)

Table SG 8

Appendix J.3. Salmon escapement survey counts in the North Peninsula Management Area, 1987.

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aber	Name	Day	Date	Condition	Uninook	Sockeye	Pink	Chum	Coho	Observer	Remarks
RTHNESTER	N DISTRICT .										
11-30.07	Whaleback	164	13-Jun	_	8	. 5,500	ð	0	8	Shaul	500 at lake outlet, 250 along morth lakeshore, remainder in lower
,	Mountain Creek				_	,	-	·	•	5.501	portion of lake outlet
		171	20-Jun	Poor	9		6	€.	8	Shaul	Algae bloom, perhaps 5,600 sockeys in upper portion of lagoon
		184	03-Jul	Poor	0		0	0	0	Shaul	Algae bloom
		192	ii-Jul	-	0	7,450	•	6	9	Shaul	Lake looks like pea soup, 7,800 in lower portion of outlet, 400 above
											outlet, 50 in creek
		511	30-Jul	-	8	21,900	9	0	6	Shaul	12,400 in creek of which 1,000 scawning, 2,000 below markers,
		227	15 A.s.			10 100					8-18,600 illegially caught after closure
		227	15-Aug 28-Sep		9	10,400	ŧ	0	2 020	Shaul Shaul	6,828 spanning, remainer in small schools
		271	co-sep	·	C	8	8	8	3.669	Shaul	All in pothole I mile above outlet channel
11-30.08	Christianson	192	1)-Jul	-	0	8	9	ė	8	Shaul	
	Lagoon	211	30-Jul	-		400	9	0		Shaul	75% schooled
		227	15-Aug	-	0	180	0	0	8	Shaul	
		271	28-Sep	-	9	469	0	0	9	Shaul	Scawning
11-30.09	Mudhole	184	03-Jul	_	e	e	0	199	0	Shaul	Spawning, 1,400 seleon in lower portion of Peterson Lacoon
.,	7,40,7012	192	11-Jul	-	è	0	0	400	ě	Shaul	Spawning, approximately 2,000 churs and 1,300 sockeyes in Peterson
					•	•				0.1641	Lagoon, 500 churs and 500 sockeye at lagoon wouth
		115	30-Jul	-		100	0	2,000	9	Shaul	Spanning, additional 2,000 sockeyes and 1,000 chues in lagoon of which
								,			200 sockeyes were spanning
		227	15-Aug	-	9	1,000	0	10,000	0	Shau1	Good escapement
	Clear Lagoon	184	03-Jul		8	•	•	۰	•	Chaul	
11-30-10	riest Madoou	184	ts-Jul		9	8 8	9	0 A	9	Shaul Shaul	
	*	192			8		-	•	-		700 sockeyes at stream mouth
		211	30-Jul		6	300 400	0	1,000	8	Shaul	Additional 200 sockeyes spawning in layoon west of 38.18
		227	15-Aug	-	•	900	6	2,670	8	Shaul	Haditious See socialist stated to talkon mast of 24-10.
11-48.81	Emil's River	192	11-Jul	-		0	,	100	0	Shaul	All saleon immediately above stream south
		242	30-Aug	-	6	15	8	200		Shaul	Sockeyes spawning, churs in lower portion of stream, 3-400 Dally Vanden
11-40.04	North Creek	227	15-Aug	_	e	e	0	1,100	9	Shaul	800 schooled in lower portion of stream, remainder spawning at headwaters
			3		•	-	-	-1	•		•
11-58.81	Big River	258	15 -5 ep	-	0	0	9	500	e	Shaul	Schooled

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Appendix J.3. (p 2 of 9)

Str	69H	Julian i	Calendar	Survey			Soecies				
u#ber 	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Caho	Observer	Remarks
111 <u>-50</u> -02	Swanson Lagoon	182	01-Jul		9		0	200	8	Shaul	
311-30.00	Swanson Cagoon	192	11-Jul		e	ě	ē	1,870	0	Shaul	Partial survey of creek only, 100 chums scawning, good showing of chums in lagoon and at lagoon wouth
,		284	23-Ju1		9	300	0	600	8	Shau1	Partial survey of creek only, sockeyes in lower portion of lacoon
	•	210	29-Jul		e	0	0	3. 878	0	Shaul	Partial survey of creek only, 4-5,828 large Dolly Varden in lower 1/4 mile, good sign of salmon in outlet
		219	07-Aug	-	0	1.600	0	866	0	Shau1	Partial survey of creek only, 1,800 colored sockeyes in pothole
		237	-		0	9.700	8	699	3,200	Shaul	100 sockeyes and all chums spawning in creek
		250	07-Seo	-		8,669	•	9	6	Shaul	Partial survey of lagoon only, 3,000 sockeres scanning
		259	16-Sep		0	4.020	0	0	500	Shaul	Partial survey of lagoon and lower 2 miles of creek, sockeves all spawning in lagoon, cohos in creek
		271	28-Seo	Poor	6	1,000	ø	8	7,528	Shau i	Cohos in lower portion of creek, 7,000 above wouth of creek, 200 sockeye spawning in creek, revainer in laçoon
311-68.01	St. Catherine	182			e	6	9	6	9	Shaul	Partial survey of lower 1/2 mile of stream, 100 churs at stream mouth
	Cove	192	11-Jul	-	0	8	6	1,300	6	Shaul	158 chums at stream mouth, 408 chums in upper valley, 708 on lower portion of stream
		294	23-Ju1	-	9	9	0	3,600	0	Shaul	300 chums at stream mouth
		218	29-Jul	-	6	9	6	4.100	. 0	Shaul	588 chums at stream mouth
		219	07-Aug	-	9	0	0	5,200	0	Shaul	300 chums at stream mouth, jumpers on flats
		227	15-Aug	-	0	8	0	2,300	9	Shaul	Partial survey of lower 2 miles, 1,828 chums at stream mouth, 328 chums on flats
		237	25-Aug	-	0	8	0	8,600	9	Shaul	Partial survey of lower 5 miles, excellent escaperent in lower river, 500 chums at stream mouth
		259	16-5 e p	-	9	0	0		9	Shaul	Partial survey of stream mouth only
311-60.06	Anderson Creek	237	25-Aug	-	0	9	500	100	9	Shaul	100 pinks at stream mouth
11-60.07	Trader's Cove	219	07-Aug	-	8	e	580	0		Shaul	1,500 chuss in channel
and .68		227	15-Aug	-		0	e	568	9	Shaul	2,888 chums in outlet channel
		234	22-Aug	-	•	•	. 0	300	0	Shaul	1,000 chums on flats, 1,000 chums in channel, several thousand rear village
		237	25-Aug	-	•	•	8	400	8	Shaul	1,000 churs on flats, 3,000 churs in channel
		250	9 7-Sep	-		0	•	6,500	9	Shaul	5,000 churs on flats and 2,000 churs in channel
11-68.12	Warmsprings	227	15-Aug	-		8	25			Shaul	
	Bay	234	22-Aug	-	8	•	9	9		Shaul	
		250	67~Sep	-	0	0	8	1,000	0	Shaul .	Cherokee survey
		259	16-Sep	-	e	•	0	3,000		Shaul	Cherokee survey, 90% spaining

Appendix J.3. (p 3 of 9)

Str	PAR	Julian (Calendar	Survey			-Species	;			
lusber	Nam e	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Rewarks
311-60.13	Hungry's Cr ee k	227	15-Aug	-	9	. 6	0	28	0	Shau1	10 chums at stream mouth
312-20.01	Norma Ereek	251	68-Seo	- '	•	180	e	6	9	Schwarz	
312-20.02	Mike's Duck	284	23-Jul	_	9	0	8	166	0	Shaul	
	Самр	210	29-Jul	-	. 8	0	0	888	6	Shaul	
		219	07-Aug	-	0	9	9	1,200	9	Shaul	
		196	15-Jul	-	0	e	0	1,100	0	Shaul	
		251	88-Sep	-	0	0	0	2, 100	8	Schwarz	
312-20.03	Alligator Hole	218	29-Jul		0	0	0	100		Shau1	15,60 chums in alligator hole
		219	07-Aug	-	6	8	8	458	8	Shaul	3-4,000 chums in alligator hole
		196	15-Jul	-	8	0	0	600		Shaul	6,880 chuns on flats
		251	08-Sep	-	e	0	0	11,609	0	Schwarz	Good escapement
312-20.04	Norma Bay	210	29-Jul	-		8	0	. 0	8	Shaul	300 chums at stream mouth
		227	15-Aug	•	0	9	0	200	0	Shaul	500 chums at stream mouth
		251	68-Sep	-	0	9	9	3, 669	9	Schwarz	1,830 chums at stream mouth
312-20.05	Frosty Creek	192	11-Jul	-		e	8	200		Shaul	100 churs at stream mouth
		204	23-Jul	•	8	0	0	3,600	0	Shaul	100 chuma soawning
		210	29-Jul	•	8		0	5, 300	9	Shaul	
		219	97-Aug	-	9	0	0	6, 000	0	Shaul	
		227	15-Aug	-	8	•	9	8, 100		Shaul	Escapement should be 16,600 plus for good escapement
		251	08-Sep	-		260	0	8.000	6	Schwarz	3,000 chums at stream mouth
312-20.51	Izembek Bay	227	15-Aug	-		166		1,000	9	Shaul	
	:	254	11-Sep	-	•	0	•	8, 000	0	Shaul	500 churs at stream mouth, additional 8,000 plus carcasses
312-20.52	Izembek Bay	227	15-Aug	-		•		400		Shaul	
		251	66-Sep	-	0	•	, •	3,600	0	Schwarz	5,888 chums at stream mouth, excellent escapement
312-28.06	Blumbill Lake	236	24-Aug	•		900		100	0	Shaul	Chums spawning in outlet stream, 25% of sockeyes spawning
		251	08-Sep	-	0	1,100	6	100	0	Shaul	
312-28.13	Outer Marker	236	24-Aug	-	e	500	8	288	9	Shaul	198 chums at stream mouth, sockeyes in lake, chums spawning in outlet stream

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Appendix J.3. (p 4 of 9)

Str	£12	Julian (Calendar	Survey			-Species				
usber	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Remarks
312-48.01	Joshua Green	187	6 6-Jul	-	0	2,000	e	3, 200	0	Shaul	600 below forks, remainder in A between forks and lake
	River, A & B	192	11-Jul	Good	0	5,500	0	5, 200	0	Shaul	Partial survey, right vailey to stream mouth
	•	205	24-Jul	Poor	9	1,000	8	38,000	0	Shaul	Partial survey, right valley to stream mouth, muddy water, 23,000 churs below lake
		219	29-Jul	Poor	6		0	35, 000	0	Shaul	Partial survey below Take only
		219	07–Aug	Fair	0		0	16, 200	9	Shaul	700 below forks, partial survey below lake only
		227	15-Aug	•	8	3, 380	6	78, 208	•	Shaul	Sockeyes in right hand, 7,000 chues below forks, 38,000 chues in left hand
		251	08-Sep		9	200	0	87,700	0	Schwarz	56,800 chums in left hand, remainder in right hand
312-40.02	Moffet Springs	204	23-Jul	-	9	20	0	820	9	Shaul	Chuns in lower 1/4 mile of atream
	Creek	218	29-Jul	Poor	9	0	8	1,500	9	Shaul	
		219	07-Aug	-	9	0	0	3,500	8	Shaul	
		227	15-Aug	-	8	8	6	8.000	0	Shaul	200 churs soaming
		251	88-Sep	-	0	25	0	4,200	8	Schwarz	
312-48.03	Moffet Point	284	23-Jul		8	700	8	•	0	Shaul	200 churs spawning
		210	29-Jul		•	688	8	3.900	8	Shaul	3,600 churs below forks, sockeyes on or near scawning grounds
		219	07-Aug		0	2,500	6	2,609	. 6	Shaul	
		227	15-Aug		6	600	0	2,000	0	Shaul	Partial survey above forks only
		251	08-Sep	-	0	100	0	5, 000	8	Schwarz	Partial survey of A fork and below
ORTHERN DI	STRICT							. •			
313-10.02	North Creek	192	11-Jul	Good	1,400	0	0	0	8	Shaul	All in lower 2 miles of stream
	{	233	21-Aug	Poor	0	8, 300	0	2,700	9	Shaul	4,520 sockeyes in C lake, 920 lower C lake, 1,920 in mid C lake, partial survey, probable twice as many chums
313-18.85	Cathedral River	233	21-Aug	-	0	400		9	9	Shaul	
313-10.09	Amoco Airstrip	207	26-Jul	-	0	9	0	20	0	Shaul	Chums in lower 200 yards of stream
313-10.11	Black Hills	192	11-Jul	_	1,000	0	0	6	ø	Shaul	
	Creek	207	26-Jul	-	1,400	0	0	0	0	Shaul	300 in lower 320 yards, all schooled
313-10.14	Steelhead	192	1i-Jul	-	500	8	0	8	0	Shaul	
	Creek	207	26-Jul	-	800	ø	8	0	•	Shaul	300 in lower 300 yards, all schooled

Appendix J.3, (p 5 of 9)

	418	Julian (alendar	Survey			-Species				
usber	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Remarks
13-39.01	David's River	284	23-Jul	-	200	130	0	0	9	Shaul	Chinooks schooled, sockeyes spawning
		247	84-Sep	-	0		0	8	466	Shau1	
		267	24-Seo	-	8	9, 400	0		300	Shaul	Cohos in main stem, 4,400 sockeyes spanning in Big Fish lake along west shore, 1,500 sockeyes spanning in E lake which is first lake NC of Big Fish Lake, 3,200 sockeyes in B lake, 300 sockeyes spanning in lake behind Maxie's house
13-30.62	Caribou River	192	11-Jul	•	0	300	8	8	8	Shaui	100 in Divide Lake, remainder in Trader Mountain Lake
3-38.83	Nelson River/	183	82-Jul	Fair	· •	15,600	8	8		Shaul	Survey above ADF&G tower, 11,000 in lake, 4,600 in river
	Hoodoo Lake	187	06-Jul	-	8	32,500	0	0	0	Shaul	Survey above ADF&5 tower, 25,200 in lake, 1,500 below junction of left creek
	A, B, & C	265	24-Jul	Poor	3,200		0	ė	. 9	Shaul	Partial survey, forks to tower and Peterson Creek, 600 in Peterson Cr.
	(see tower -	233	21-Aug	-	2,600	78,300	0	5,200	500	Shaul	3,600 sockeyes in river and left creek, remainder in Lake
	escapewent	539	27-Aug	Excellent					2,700	Shaul	Partial survey from forks to Left Dreek, counted cohos only
	counts)	247	04-Sep	Fair					7, 000	Shaul	Fair conditions below Peterson and excellent above, largest concentration between ADF&G airstrip and Peterson
		250	07-Sep	Fair					9,200	Shaul	Rough count, 8,000 between Peterson Creek and ADF\$8 cabin
		267	24-Sep	-					27,500	Shaul	Good escapement, most located between 1/3 to 2/3 of way between Left Creek and Hoodoo Lake
3-39.7?	Coastal Lake	267	24-Sep	-	0	1,600	•	0	8	Shaul	$I_{\rm t}$ 108 sockeyes spawning, remainder near Drill Hole take
4-28.82	Doe Valley	205	24-Ju1	Good	e		8	. '	9	Shaul	200 churs at stream mouth
	•	556	14-Aug	-	•	8	0	2, 100	0	Shaul	300 chums at stream mouth, additional 2,100 carcasses
4-20.83	Buck Velley	226	14-Aug	-	•	8	0	2,300	0	Shaul	100 chums at stream mouth, additional 500 carcasses
14-29.84	Dear Valley	226	14-Aug	. -	0	5-8		16, 100	•	Shaul	4,000 churs at stream mouth, additional 800 carcasses, 2,300 in fork, good escapement
14-20.05	Portage Valley	8 26	14-Aug	-	•	•	•	100	9	Shaul	3,000 chums at stream mouth, additional 100 carcasses
14-20.06	Oraus Valley	285	24-Jul	-		400	•	408		Shaul	Partial survey of lower 2 miles, 100 sockeyes spanning, all sockeyes in lake
		226	14-Aug	-	8	500	•	6,700		Shaul	7,500 churs in stream south
14-20.07	Lawrence	205	24-Jul	-		e	8	898	9	Shaul	Few on flats
	Valley	226	14-Aug		ē		8	6,800	8	Shaul	4,000 at stream mouth, additional 100 carcasses, good escapement

Appendix J.3. (p 6 of 9)

	ear	Julian (Calendar	Survey			-Species				
tumber	Name	Day	Date	Condition	Chinook	Sockeye	Pink	Chum	Coho	Observer	Resarks
114-29, 08	Mine Harbor	226	14-Aug	-	0	. 0	8	166	0	Shau1	1,000 chums at stream mouth, additional 100 carcasses
314-20.09	Coal Creek	285	24-Ju1	-	0	0	e	788	•	Shaul	Partial survey of lower 1 mile
ů.		226	14-Aug	-	0	0	0	7,200	e	Shaul	Additional 2,200 carcasses, 1/2 the carcasses in lower 2 miles of stream
314-30.04	Mud Bay	556	14-Aug	-	0	0	0	2,900	•	Shaul	Additional 100 carcasses
314-38.65	Mud Bay	556	14-Aug	-	8	•	8	2,989	8	Shaul	Additional 300 carcasses
314-3 0. 07	Right Head	556	14-Aug	-	•		6	600		Shaul	
314-38.69	Right Head Ereek	226	14-Aug	-	0	0	0	5, 988	0	Shaul	
314-30.10	Left Head	219	87-Aug	Good	9	9		7,800	8	McCullough	,
	Creek	558	•		6	₩.	8	3,200	0	Shaul	
315-30.01	Frank's Lagoon	172	21-Jun	-	8		9	•		Shaul	Partial survey of Jagoon and outlet
	-	183	€2-Jul	Poor	6	•	•	•	. 6	Shaul	Partial survey of outlet only, Dexter Lall said good numbers of churr from ground survey
		205	24-Jul	•	•	8	8	700	0	Shaul	Partial survey of stream only
		588		Excellent		•	8	1,380	8	McCullough	n Of which 40 were in lagoon
		219	-	Excellent		8	0	3,600	0	-	n 80% spawning, most in lower portion of the stream
		556	14-Aug	•	•	ð	•	1,300		Shaul	Partial survey of lower mile of stream
315-10.02	King Salmon	172				•	8	•	•	Shaul	
	River;	183	8 2- J ul		0	9	8	8	8	Shaul	2 Sport fishermen, 3 boats near stream
	•	568	27-Jul		30	8	0	75	•		o 15 chuns in lower area
		219	0 7-Aug	Excellent	45	8	•	55	•	McCullough	i Very poor escapement
315-11.82	Bear River	172				1,400	, 0		0	Shaul	Fish appear to be moving upstream quickly
	(see tower escapement counts)	288	27-Jul	Excellent	318			0	0	McCullough	n Partial survey of C tributary only

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Appendix J.3. (p 7 of 9)

Str	694	Julian D	alendar	Survey			Soecies				
umber	Name	Day	Date	Condition		Sockeye	Pink	Chum		Observer	Remarks
15_10 80	Sandy River	172	21-Jun	Fair	0		6	ę	0	Shaul	Darkish was and
113-12.10	Sarely Kiver	,,,	£1 Jun	, 41.	·		•	•	v	2014	Partial survey of outlet only, some fish near mouth, perhaps 1,866 sockeyes and several chinooks
à		183	02-Jul	Poor	9	2,000	6	0	6	Shaul	Partial survey of lake and river, 2,880 sockeyes in river and lagoon area, lake muddy
		189	68-Jul	Good	6	4, 220	0	6	9	Schwarz	Partial survey of lake and river, 1,200 sockeyes in lake, remainder in lagoon and river
		285	24-Jul	Poor	8	2,900	9	0	9	Shaul	Partial survey of spanning grounds only, remainder poor visibility
		209	28-Jul	Fair	0	6.075	6		0		Partial survey of lake and scamming grounds, several schools in lake, 75 near scamming grounds
		219	07-Aug	Fair	125	8,900	6	15	0	McCullough	Partial survey did not fly above spring soawn area, chincoks and chums in outlet
		226	14-Aug	Good	e	8,700	ę		. 0	Shaul	All on spawning grounds, 8,000 in spring spawn area, 50% spawning, poor escaperent
316-10.01	Lime Creek	219	07-Aug	Good	0	0	0.	50	6	McCullough	•
316-10.02	Unnamed	219	e7-Aug	Good	6	e	0	75	9	McCullough	
315-10.04	Three Hills	219	97-Aug	Poor	0	0	9	e	. 8	McCullough	•
		219	07-Aug	-	0	e	9	30	•	Shaul	
316-10.05	Ocean River	183	02-Jul	-	0	1,850	e . ,	0	9	Shaul	1,600 in Hildman Lake, 150 at lake outlet, 100 in upper portion of Ocean River which flows directly into Bering Sea
		189	08-Jul	Poor	9	200	0	e	0	Schwarz	Sockeyes in Take between Finger takes and Wildman Lake
	;	262	24-Jul	-	6	1,600	•	8	8	Shaul	Partial survey of spawning grounds only, all in Finger Lakes, 82% spawning, 200 plus carcasses in Wildman Lake
	,	226	14-Aug	Excellent	0	2,500	9	8	0	Shaul	All spawning in Finger Lake, 4-5,000 carcasses in Wildman Lake
		267	24-5ep	-	0	•	0	9	3, 199	Shaul	Partial survey, mouth of stream to lodge, 3,000 were in lower portion of stream, fish still coming into stream
316-10.06	Willie Creek	183	02-Jul	-	8	2,000	, 0	e	0	Shaul	All in lake area, 50 on spanning grounds
		189	08-Jul	-	0	6,350	6	0	0	Schwarz	Most in lower portion of the system
		205	24-Jul	-	8	4,400	6	6	8	Shaul	1,700 on spanning grounds, all fish colored, nothing in lower portion
		225	14-Aug	Excellent	0	3,300	0	8	9	Shaul	2,100 in schools
		267	24-Sep	-	8		8	0	200	Shaul	200 cohos at stream mouth, 200 on spawning grounds, 1.000 Arctic Char- below scawning grounds

Appendix J.3. (p 8 of 9)

Str	61#	Julian (Calendar	Survey			-Species				
umber	Name	Day	Date	Condition		Sockeye	Pink	Chum		Observer	Remarks
316-20.01	Ilnik Estuary	165	14-Jun		8	800	0	0	e	Shaul	Partial survey of lacoon, most located near village
	& River	183	02-Jul	Fair	9	6,300	9	0	ė	Shaul	600 in lake above village, revainder in front of village
		189	08-Jul	-	0	14,500	0	e	ě	Schwarz	Partial survey of lagoon only, most near village
•		285	24-Jul	-	0	11,000	0	9	0	Shaul	3.820 colored in front of village, none in lower lagoon, 7,828 on
											Edawning grounds
		208	27-Jul	Good	6	75	0	0		McCullough	Partial survey of lagoon only, all near village
		226	14-Aug	Good	0	8,200	0	8	8	Shaul	Partial survey of lagoon to village,
		247	04~Sea	Excellent	9		0	8	8,030	Shaul	,, ,
		257	24-Seo	-	0		0	•	5, 290	Shaul	Partial survey of A fork only, 3,600 soawning and 2,600 near stresm
											wouth
				_	_	_	_	_	_		i i
316-20.05	Upnamed	267	24-Sep	Poor	0	0	0	ę	0	Shaul	
717 0	Charles Casali	200	20 ()	Compliant	•	960	0	ė	40	Martin Lauren	
317-2	Charles Creek	263	20~141	Excellent	8	שמל	•	v	48	McCulloug!	`
317-4	Red & Yellow	189	68-Jul	_	6	28	8	0	0	Schwarz	
711 4	Bluffs	203		Excellent	85	580	ě	400	40		520 sockeyes below forks, most in lake 1/4 mile above stream mouth. 45
	2.0.73						•				chinooks in Red Bluff
								_	_		
317- 6	Highland Creek	563	28-Jul	Excellent	Ø	450	. 0	0	0	McCullough	1
317-7.A	Meshik River	165	14-Jun	Good	0	9	0	6	. 0	Shaul	Partial survey of lower 5 miles, may have been 50-100 chinook present
117-7.H	DESILIN NIVEL	189	08-Jul	600d	50	8,258	9		6	Schwarz	
		103	60-101	0000	JU	0,510	۳,	, v	v	DCHRAFZ	Eake, sockeyes in main stem
		209	29 - tut	Excellent	35	75	8	1,388	e	MaCullous	Counts do not include fish at mouths of streams, most chums below Holf
		203	50-741	Carelleno	23	73	v	1,500	•	riccal to agr	and Waterfall Creeks.
	;	247	A4-Sen	Excellent			0		25, 800	Shaul	BUT MENGLISTS PLECKAN
	•		С, БСР				•		20,000	******	
17-7.8	Braided Creek	189	88-Jul	-	0	0	0	0	•	Schwarz	e t
		209	28-Jul	Excellent	25	125		0		McCullough	225 churs? at stream mouth
							,				
17-7.C	Landlocked	289	28-Jul	Excellent	0	45	8	375	3, 108	McCullough	1 30 chinooks and 100 chums were in lake west of main stem
	Creek										
17-7.D	Bluff Creek	299	28-1-1	Excellent	e	18,858	6			McCullouni	95% of sockeyes spanning
	DIGIT DIEEK	ra1	CO-141	F40£31£112	*	101000	•	•	U		san et see utter erenterit
17-7.E	Blue Violet	209	28-Ju1	Excellent	35	7,250	8	975	8	McCulloum	475 Sockeyes in Black Creek, 35 chinooks and 250 sockeyes in Bleepy Creek
	Creek					· 1	-		•		
117-7.F	Wolf Creek	· 209	20 11	Excellent		1,250	ø	2,400		McCullough	

Table SG 8 (continued)

Appendix J.3. (p 9 of 9)

St	ream	Julian (alendar	Survey			Soecies				
usber	Nane	Day	Date	Condition	Chinook	Sockeye	Pink	Chum		Observer	Remarks
317-7.6	Unnamed	209	28-Jul	Excellent	e		0	0	0	McCullough	158 sockeyes at stream mouth, stream blocked by beaver dam
317-7.H	Shoe Dreek	209	28-Jul	Excellent	175	400	9	1,900	•	McCullough	150 sockeyes and 1,200 chums at stream mouth
317-7.K	Unnamed	209	28-Jul	Excellent	0	3, 100	9	75	0	McCullough	2,750 sockeyes and 825 churs at stream bouth
317-7.L	Unnamed	289	28-Jul	Excellent	282	700	0	1,928	0	McCullough	
117-7. M	Unnamed	583	28-Jul	Excellent	8	275	0	0		McCullough	125 in lake, rest wostream spawning
317-7. N	Unnamed	203	28-Jul	Excellent	0	e	0	50	•	McCullough	150 chums at stream mouth
317-7.0	Plenty Bear Creek	289	28-Jul	Excellent	325	•	e	6,259	. 0	McCullough	1,500 chums at stream mouth
317-7.09	Unnamed	289	28-Ju1	Excellent	55		0	2,400		McCullough	2,500 churs at stream mouth
317-7.P	Waterfall Creek	563	28-Jul	Fair	•	6	e	175	. 0	McCullough	
317-7. R	Rainbow Creek	289	28-Jul	Fair	425		•	900		McCullough	
317-7. T	Cub Creek	209	28-Jul	Excellent	0	8	0 -	75		McCullough	
317-8	Birthday Creek	209	28-Jul	Poor	9	•	0	e	8	McCullough	Too wuddy to count
317-9	Barabara Cr ee k	289	28-Jul	Fair		0	ø	60	•	McCullough	
317-10.01	Reindeer Ersek	209	28-Jul	Poor	•	•	9	0		McCullough	Too muddy to count
318-20.01	Unnamed	289	28-Jul	Excellent	•	•	•	e	8	McCullough	
318-20.62	Unnaved	289	28-Jul	Excellent	•	2,600		e	. e	McCullough	
318-29.4	Mud Creek	209 247	28-Jul 84-Sep	Excellent Fair		8	8	6 •	300	McCullough Shaul	1 sockeye carcass in A lake
315-20.6.	A Cinder River	165 208 247	14-Jun 27-Jul 84-Sen	Fair Excellent Excellent	900	12,700	8	6 , 298	6 0 2,490	Shaul McCullough Shaul	Includes all tributaries

Table SG 9.

SOUTH PENINSULA SOCKEYE INDEXED TOTAL ESCAPEMENTS BY SECTION, 1962-1987

SOCKEYE SALMON

<u>Year</u>	West <u>Stepovak</u>	Shumagin <u>Islands</u>	Mino Creek - <u>Little Coal Bay</u>	Pavlof Bay	Canoe Bay
1962	5,000	4,000	100	(500)	200
1963	7,600	2,700	100	(500)	0
1964	5,800	700	0	900	Ŏ
1965	6,000	2,100	0	1,500	Ŏ
1966	10,000	900	100	200	Ŏ
1967	6,200	4,000	0	400	Ŏ
1968	3,600	2,400	Ö	400	Ŏ
1969	19,200	1,600	200	500	Ŏ
1970	4,600	4,400	500	1,400	300
1971	11,100	2,800	500	1,300	0
1972	6,500	2,000	0	400	Ö
1973	1,200	1,000	Ö	500	Ö
1974	61,500	7,900	Ö	200	200
1975	22,300	11,600	500	1,600	1,600
1976	29,700	7,500	1,000	2,800	300
1977	17,000	9,200	2,000	4,500	500
1978	22,200	9,000	2,700	2,100	1,500
1979	20,000	13,000	200	1,100	1,500
1980	12,000	6,300	1,100	1,000	5,500
1981	18,000	4,000	500	5,500	2,000
1982	9,100	10,000	800	1,000	1,000
1983	21,500	10,000	1,600	1,100	5,000
1984	18,600	10,600	100	700	9,000
1985	14,000	7,800	500	900	1,000
1986	10,500	6,800	100	1,500	2,700
1987	11,400	2,000	500	1,200	1,300

Figures in parenthesis are extrapolated estimates.

Table SG 9 (continued)
SOUTH PENINSULA
INDEXED TOTAL ESAPEMENTS BY SECTION

SOCKEYE SALMON

<u>Year</u>	Cold <u>Bay</u>	Thin <u>Point</u>	Morzhovoi <u>Bay</u>	Ikatan <u>Bay</u>
1968	2,300	2,200	1,500	400
1969	5,200	2,100	500	200
1970	1,000	1,100	(2,500)	700
1971	900	1,300	200	1,300
1972	1,100	1,300	200	400
1973	1,500	700	400	1,000
1974	3,500	16,000	5,300	1,000
1975	5,000	6,100	2,200	800
1976	4,900	20,500	1,700	1,300
1977	7,600	17,700	3,800	2,600
1978	14,700	7,400	2,600	(2,600)
1979	7,800	6.900	700	2,100
1980	4,800	12,000	1,300	1,000
1981	5,600	7,500	1,200	1,400
1982	2,600	8,800	4,200	1,700
1983	8,000	6,500	3,700	1,800
1984	6,600	7,000	500	1,800
1985	5,000	4,600	2,100	3,900
1986	1,800	12,400	5,500	1,800
1987	7,800	8,700	7,000	2,100

Figures in parenthesis are estrapolated estimates.

Table SG 10

SOUTH PENINSULA INDEXED TOTAL ESCAPEMENTS BY SECTION

PINK SALMON

<u>Year</u>	East <u>Stepovak</u>	West Stepovak	Balboa <u>Bay</u>	Shumagin <u>Islands</u>	Beaver <u>Bay</u>	Mino Creek - <u>Little Coal Bay</u>
1962	48,000	122,300	(24,500)	112,900	(17,500)	278,700
1963	87,000	197,000	53,800	52,000	21,700	290,100
1964	35,000	155,300	25,200	125,400	30,500	316,000
1965	100,000	160,700	32,000	50,900	8,400	255,100
1966	107,000	191,500	(70,000)	(83,000)	(10,000)	108,600
1967	53,200	67,000	25,100	32,000	1,800	73,000
1968	25,000	(75,000)	63,600	51,200	(8,000)	96,200
1969	180,000	369,300	187,200	112,900	29,400	484,900
1970	59,000	273,900	38,700	166,500	(15,000)	173,400
1971	15,700	101,200	13,600	32,000	(12,000)	190,100
1972	1,300	20,900	1,100	9,900	0	13,200
1973	9,500	17,500	(6,000)	12,000	(500)	21,500
1974	4,100	41,400	7,500	(40,000)	(6,000)	28,000
1975	20,000	110,000	8,000	52,200	2,500	90,400
1976	30,000	204,600	42,500	331,000	(14,000)	116,900
1977	101,400	360,000	92,700	299,600	82,500	662,000
1978	77,000	449,200	108,200	199,600	60,500	498,100
1979	40,000	302,400	133,600	(131,400)	65,700	648,100
1980	56,800	344,100	77,700	133,600	32,400	297,500
1981	78,800	460,000	82,000	89,600	53,600	700,000
1982	25,000	313,400	50,000	140,000	50,000	419,200
1983	42,700	115,300	27,300	51,700	4,000	160,400
1984	101,000	418,100	135,100	165,800	49,200	876,800
1985	34,200	216,300	34,500	125,600	23,300	380,200
1986	50,700	222,000	41,200	176,000	9,400	239,700
1987	89,100	290,500	58,100	174,700	48,800	321,700

Figures in parenthesis are extrapolated estimates.

Table SG 10 (continued)

SOUTH PENINSULA INDEXED TOTAL ESCAPEMENTS BY SECTION

PINK SALMON

<u>Year</u>	Pavlof <u>Bay</u>	Canoe <u>Bay</u>	Volcano Bay	Belkofski <u>Bay</u>	Deer <u>Island</u>	Cold Bay
1962	213,200	9,000	5,000	95,300	229,100	(7,000)
1963	158,900	26,000	7,200	150,200	225,300	9,700
1964	205,000	(10,000)	5,100	(85,000)	201,000	24,500
1965	158,600	24,200	21,000	53,000	135,900	7,000
1966	55,200	2,100	0	30,000	32,600	13,300
1967	62,600	12,600	21,000	72,000	15,600	300
1968	132,600	76,500	(7,200)	54,000	67,000	97,600
1969	438,500	104,000	115,000	244,000	185,100	4,000
1970	186,500	94,900	10,500	65,800	120,500	29,200
1971	76,200	47,200	13,500	58,100	136,700	200
1972	29,400	6,000	7,000	8,000	7,000	1,100
1973	10,000	8,700	7,300	6,300	7,100	200
1974	106,800	4,800	3,000	10,100	16,100	8,200
1975	68,900	5,800	70,000	58,600	56,100	1,100
1976	267,000	78,000	117,600	109,600	47,800	50,100
1977	442,300	129,000	137,500	239,200	101,200	8,300
1978	395,700	178,000	193,800	221,200	184,000	76,900
1979	543,100	260,800	60,000	139,200	256,100	5,900
1980	425,200	43,100	56,200	230,200	350,200	49,600
1981	325,000	86,000	107,000	163,600	107,500	7,900
1982	462,300	73,300	41,900	106,300	157,700	95,100
1983	172,500	65,300	26,200	50,900	89,400	11,100
1984	708,800	72,000	143,600	207,000	446,000	143,200
1985	378,500	36,700	24,200	82,100	206,300	7,100
1986	403,800	42,600	78,800	111,600	181,500	29,900
1987	282,300	39,200	19,800	50,400	137,400	7,000

Figures in parenthesis are extrapolated estimates.

Table SG 10 (continued)

SOUTH PENINSULA

INDEXED TOTAL ESCAPEMENTS BY SECTION

PINK SALMON

<u>Year</u>	Thin <u>Bay</u>	Morzohvoi Bay	Ikatan <u>Bay</u>	Unimak <u>District</u>	Bechevin*
1962	31,300	63,000	170,000	172,000	4,000
1963	(4,000)	15,000	(10,000)	(10,000)	4,400
1964	39,400	(41,000)	(110,000)	27,500	(15,000)
196 5	13,700	6,100	5,000	3,800	900
1966	5,900	2,000	3,900	4,300	1,300
1967	5,100	2,500	700	(1,000)	500
1968	9,400	14,000	29,000	17,000	25,000
1969	14,700	1,000	3,500	1,400	2,100
1970	7,900	9,300	25,000	22,800	11,100
1971	3,600	800	1,500	300	8,400
1972	1,100	3,700	1,500	200	1,200
1973	4,000	(200)	0	(0)	(200)
1974	1,600	300	2,500	(4,000)	(23,000)
1975	5,200	2,100	1,000	200	500
1976	6,000	13,400	10,900	(17,000)	37,200
1977	5,100	8,100	9,500	400	6,200
1978	15,700	90,000	75,000	35,800	90,400
1979	6,000	9,000	24,400	3,800	9,300
1980	53,000	76,500	320,500	95,000	94,000
1981	18,200	9,500	17,300	800	5,700
1982	34,900	48,000	187,900	88,000	51,500
1983	15,700	4,400	13,500	800	3,900
1984	77,000	16,500	199,000	52,900	33,300
1985	30,300	8,500	10,500	15,900**	1,400
1986	39,700	14,800	58,500	16,400**	12,600
1987	7,500	2,900	5,800	5,300	1,100

Figures in parenthesis are extrapolated estimates

^{*} Bechevin Bay is considered part of the North Peninsula.

^{**}Includes Sanak Island, which accounted for 15,500 and 5,400 during 1985 and 1986 respectively.

Table SG 11

SOUTH PENINSULA INDEXED TOTAL ESCAPEMENTS BY SECTION

CHUM SALMON

<u>Year</u>	East <u>Stepovak</u>	West <u>Stepovak</u>	Balboa Bay	Shumagin <u>Islands</u>	Beaver <u>Bay</u>	Mino Creek - <u>Little Coal Bay</u>
1962	12,000	14,000	(43,700)	10,000	(6,000)	16,900
1963	29,400	71,900	43,900	1,200	` oʻ	300
1964	18,000	17,500	24,200	100	4,500	1,500
1965	60,000	23,500	29,900	1,100	200	100
1966	110,000	33,300	(100,000)	(0)	0	2,000
1967	15,700	5,500	27,100	1,100	3,300	0
1968	23,000	(11,100)	31,600	3,700	(6,500)	800
1969	6,000	9,400	16,400	2,400	9,800	0
1970	25,000	24,700	29,900	0	(15,000)	100
1971	56,100	49,900	26,500	300	(20,000)	200
1972	19,000	20,300	15,100	6,600	5,500	0
1973	27,000	4,500	8,700	4,400	(7,500)	800
1974	25,000	11,000	8,200	(1,500)	9,600	400
1975	24,000	43,100	(9,000)	8,300	4,900	1,500
1976	20,000	19,300	43,100	10,100	(10,400)	0
1977	126,200	47,300	55,300	14,000	15,000	0
1978	74,000	76,900	53,300	26,000	7,000	500
1979	(50,000)	50,400	28,500	(5,000)	200	0
1980	26,100	44,300	28,300	1,100	19,000	0
1981	34,000	23,900	42,000	5,500	13,000	0
1982	20,000	26,900	14,000	3,000	10,000	0
1983	40,200	51,100	46,600	11,800	10,700	0
1984	54,200	42,400	35,700	56,300	62,400	0
1985	34,800	16,900	17,500	24,300	18,800	0
1986	44,300	38,700	33,300	1,500	9,900	0
1987	91,000	28,100	35,600	12,600	5,600	4,100

Figures in parenthesis are extrapolated estimates.

Table SG 11 (continued)

SOUTH PENINSULA INDEXED TOTAL ESCAPEMENTS BY SECTION

CHUM SALMON

<u>Year</u>	Pavlof <u>Bay</u>	Canoe <u>Bay</u>	Volcano Bay	Belkofski <u>Bay</u>	Deer <u>Island</u>	Cold Bay
1962	(26,500)	109,500	54,900	29,000	0	(13,000)
1963	(10,000)	106,300	17,900	104,600	0	46,400
1964	(25,000)	70,000	70,400	51,700	0	114,300
1965	(15,000)	73,500	6,300	7,000	0	10,400
1966	(20,000)	89,500	29,900	11,000	0	14,300
1967	(12,000)	68,100	19,100	21,000	0	5,500
1968	23,300	91,700	(8,700)	29,500	0	31,400
1969	(5,000)	47,900	2,000	10,000	0	20,100
1970	13,000	64,000	25,200	36,500	0	34,100
1971	(15,000)	31,100	24,100	65,500	0	25,600
1972	8,100	70,400	16,000	37,300	0	25,700
1973	19,500	58,500	16,000	34,400	0	11,600
1974	(22,000)	92,100	27,400	29,100	0	16,400
1975	8,200	61,200	11,500	4,800	0	8,200
1976	17,500	104,900	29,500	30,000	0	24,300
197 7	60,100	183,000	76,000	60,300	0	85,000
1978	43,100	105,400	54,600	32,500	0	103,600
1979	(17,000)	151,600	41,500	17,800	0	17,300
1980	15,600	107,200	11,900	31,500	0	50,600
1981	13,600	102,500	30,400	34,900	0	50,400
1982	9,900	119,200	56,000	24,100	0	74,600
1983	12,000	156,500	37,700	16,900	0	33,500
1984	29,500	165,500	79,800	50,500	0	78,000
1985	22,300	150,100	49,300	31,100	0	75,200
1986	23,100	88,800	82,000	64,700	0	111,800
1987	43,000	109,200	69,900	57,400	0	89,100

Figures in parenthesis are extrapolated estimates.

Table SG 11 (continued)

SOUTH PENINSULA

INDEXED TOTAL ESCAPEMENTS BY SECTION

CHUM SALMON

<u>Year</u>	Thin <u>Bay</u>	Morzohvoi <u>Bay</u>	Ikatan <u>Bay</u>	Unimak <u>District</u>	Bechevin*
1962	14,200	7,700	42,000	0	48,500
1963	~ (9,000)	4,800	(1,000)	(0)	22,300
1964	19,500	37,100	(1,000)	0	(16,000)
1965	500	500	0	0	(1,800)
1966	3,000	7,700	700	600	10,000
1967	600	3,700	200	(0)	15,400
1968	3,100	12,700	2,000	0	19,800
1969	200	5,200	0	200	8,000
1970	6,300	6,400	300	0	(5,600)
1971	8,600	20,000	300	0	5,900
1972	17,000	12,900	400	200	11,200
1973	10,900	8,000	200	(500)	(7,500)
1974	5,200	7,900	1,000	(500)	(6,100)
1975	_ 800	7,800	0	0	17,300
1976	7,400	9,900	200	(600)	38,300
1977	26,300	25,300	0	1,100	54,300
1978	10,400	13,000	200	0	29,500
1979	17,500	12,000	1,800	500	12,400
1980	11,800	14,000	0	1,000	41,000
1981	19,500	11,500	0	100	29,600
1982	15,000	14,000	200	0	20,100
1983	21,300	7,700	500	0	15,500
1984	23,000	22,400	0	0	30,400
1985	44,000	19,200	0	0	21,900
1986	39,600	6,500	0	100	15,500
1987	51,300	23,400	0	400	34,700

Figures in parenthesis are extrapolated estimates

^{*} Bechevin Bay is considered part of the North Peninsula.

Table SG 11 (continued)

INDEXED TOTAL ESCAPEMENTS OF CHUM SALMON
IN SOME MAJOR NORTH PENINSULA PRODUCTION AREAS

<u>Year</u>	Frank's <u>Lagoon</u>	Moller <u>Bay</u>	Herendeen Bay	Nelson Lagoon	Moffet <u>Bay</u>	Izembek <u>Bay</u>	St. Catherine <u>Cove</u>
1960 1961	3.0 3.5	27.1 14.4	52.5 24.0	- 9.1	76.4 -	18.0 11.0	5.2
1962	1.5	2.0	16.4	9.7	_	48.0	21.6
1963	0.5	6.4	13.5	7.0	91.5	44.0	6.6
1964	2.2	11.0	25.5	2.0	55.5	42.0	-
1965	1.2	_	5.6	4.0	-	9.5	0.6
1966	0.7	10.7	45.5	17.0	_	19.5	5.0
1967	-	-	19.3	29.8	17.8	15.0	3.6
1968	6.0	(3.6)	45.5	18.1	89.3	52.8	4.4
1969	-	-	10.0	13.0	72.3	23.0	6.3
1970	0.5	11.6	31.2	36.0	(32.3)	25.1	3.1
1971	0	4.4	10.2	19.0	28.0	26.1	3.8
1972	4.3	, -	6.0	16.8	29.1	36.7	5.9
1973	0.6	(1.4)	2.8	12.7	41.1	27.0	8.4
1974	1.3	- ·	2.8	8.3	34.1	41.9	3.5
1975	2.6	(1.2)	6.3	4.5	35.8	38.3	12.7
1976	6.4	9.1	19.4	42.5	90.8	36.5	5.4
1977	10.0	32.2	77.5	83.3	254.9	126.5	14.6
1978	-	(9.8)	64.3	10.2	85.7	48.4	12.0
1979	5.6	13.0	18.0	37.0	130.0	48.0	5.2
1980	17.8	37.2	79.0	164.0	289.3	74.8	13.1
1981	22.1	34.2	50.1	57.0	187.0	48.0	10.0
1982	41.8	8.8	(152.3)	29.1	130.4	38.6	10.8
1983	15.0	16.4	108.0	14.0	115.5	57.2	8.3
1984	6.8	18.6	222.7	49.0	354.2	73.3	7.7
1985	5.2	6.9	64.8	13.0	138.8	59.9	7.5
1986	5.7	11.3	44.5	0.8	121.1	21.3	6.3
1987	4.9	19.6	69.0	5.2	217.6	68.4	17.9

Insufficient data for estimate.

^() Estimate based on incomplete data.

SANDY RIVER SOCKEYE ESCAPEMENT AGE COMPOSITION

Table SH 1.

Age Class	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	1984	1985	1986	<u> 1987</u>
0.1	-	-	-	-	-	-	*	-	*
0.2	-	-	-	-	-	-	*	-	*
0.3	-	-		-	-	-	*	-	*
0.4	-	-	-	-	-	-	*	-	*
1.1	-	-	-	2.3	0.1	-	*	-	*
1.2	31.8	13.8	8.4	36.4	18.5	10.9	*	2.1	*
1.3	16.0	53.6	37.5	16.7	7.4	7.7	*	4.4	*
1.4	-	0.4	-	-	-	•	*	-	*
2.1	_	-	-	0.3	-	-	*	-	*
2.2	5.8	3.3	2.8	0.8	2.0	0.2	*	0.1	*
2.3	7.4	4.5	2.8	4.8	_	0.2	*	0.3	*
2.4	-	-	-	-	-	-	*	-	*
3.1	-	-	-		•	-	*	-	*
3.2	-	0.4	-	-	-	-	*	-	*
3.3	-	-	•	-	_	_	*	-	*
3.4	- '	-	• •	-	-	-	*	-	*
TOTAL	61.0	76.0	51.5	61.3	28.0	19.0	11.5	6.9	8.7

(Fish in Thousands)

^{*}No otoliths were collected in 1985 and 1987 due to high water on spawning grounds.

Table SH 2.

PEAR RIVER SOCKEYE ESCAPEMENT AGE COMPOSITION (Fish in Thousands)

Age Class		<u>1979</u>	<u>1980</u>	<u>1981</u>	1982	<u>1983</u>	1984	1985	1986	1987
0.1		-	-	-	-	-	_		-	-
0.2		-	-	· -	-	-	-	-	-	-
0.3	4	-	-	-	-	-	-	-	0.3	_
0.4		-	-	-	-	-	-	-	-	- `
1.1		6.7	7.6	-	2.5	0.1	8.5	0.8	-	-
1.2		40.3	34.9	128.9	4.5	6.6	12.1	16.1	9.5	6.5
1.3		3.1	9.4	37.8	15.4	2.1	4.9	30.2	12.6	33.9
1.4		-	-		-	0.3	0.4	-	-	0.2
2.1		95.1	44.3	14.6	55.9	40.3	141.7	36.8	3.2	0.5
2.2		660.7	480.4	397.1	95.9	154.4	167.7	299.7	159.1	132.8
2.3		144.6	93.3	111.5	125.7	119.6	59.3	52.9	88.3	77.5
2.4		-	-	-	-	1.4	-	1.5	0.4	1.0
3.1		-	· <u>-</u>	-	-	-	-	-	-	
3.2		-	0.9	-	0.1	4.7	-	2.0	-	-
3.3		. 1.5	-	-	-	0.4	-	-	-	-
3.4		-	-	-	-	-	-	-	-	-
TOTAL		952.0	670.8	689.9	300.0	329.9	394.6	440.0	273.4	252.4

Table SH 3.

NELSON (SAPSUK) SOCKEYE ESCAPEMENT AGE COMPOSITION

(Fish in Thousands)

Age Class	<u> 1979</u>	<u>1980</u>	<u> 1981</u>	<u>1982</u>	<u> 1983</u>	<u>1984</u>	<u> 1985</u>	1986	<u>1987</u>
0.1	_	-	-	-	-	-		_	-
0.2	_	-	-	-	-	-	-	-	_
0.3	-	-	-	-	-	-	-	0.7	-
0.4	4 °	-	-	-	-	-	-	-	-
1.1	2.3	6.7	_	16.2	0.4	1.0	-	-	- `
1.2	54.2	13.8	28.6	0.6	4.1	14.0	13.2	1.8	26.9
1.3	-	66.0	16.3	11.4	7.9	34.1	14.5	9.2	14.2
1.4	-	-	-	-	0.4	-	-	-	-
2.1	49.7	13.8	9.0	13.9	5.2	41.8	42.8	2.8	0.8
2.2	146.7	191.2	152.9	14.7	41.0	94.4	210.9	18.4	96.4
2.3	55.9	43.9	36.9	114.8	40.2	58.8	32.9	83.9	3.9
2.4	43.3	-	-	-	-	-	-	0.2	-
3.1	•	-	_	-	•	-	_	•	-
3.2		<u> </u>	0.5	-	0.4	-	-	-	-
3.3	-	-	•	-	0.4	-	-	-	_
3.4	-	-	-	-	-	-	-	-	-
TOTAL	352.1	335.4	244.2	171.6	124.0	244.1	314.3	117.0	142.2

Table SH 4.

1987 SOCKEYE ESCAPEMENT PERCENT AGE COMPOSITION

AGE CLASS	*URILIA BAY	*SWANSON LAGOON	NELSON RIVER	BEAR RIVER	ILNIK
0.1	-	-	-	· -	-
0.2	0.2	-	-	-	2.3
0.3	50.7	24.3	-	-	40.7
0.4	-	-	-	-	7.0
1.1	-	0.1	-	-	_
1.2	6.5	5.5	18.9	2.6	1.2
1.3	39.5	42.7	10.0	13.4	44.2
1.4	1.4	-	-	0.1	1.2
2.1	-	0.1	0.6	0.2	-
2.2	-	5.7	67.8	52.6	1.2
2.3	0.5	21.5	2.8	30.7	2.3
2.4	-	-	-	0.4	-
3.1	-	-	-	_	_
3.2		-	-	-	_
3.3	-		-	-	-
3.4	-	- -	-	-	
Sample					
Size	1,132	885	180	1,956	86

^{*}Samples obtained from commercial catch, all seine caught except for roughly 10 percent of the Urilia Bay sockeye.

Table SH 5.

1987 PERCENT AGE COMPOSITION CHUM SALMON*

SOUTH PENINSULA

	Balboa-	Canoe	West	Belkofski
	Stepovak	<u>Bay</u>	<u>Pavlof Bay</u>	<u>Bay</u>
0.2	1.3	2.2	7.0	3.2
0.3	51.3	38.6	61.9	71.3
0.4	46.9	58.3	30.9	24.4
0.5	0.4	0.9	0.2	1.1
Sample Size	2,429	1,685	1,114	499

NORTH PENINSULA

	Swanson Lagoon	Bechevin <u>Bay</u>	Izembek- Moffet Bay	Nelson <u>Lagoon</u>	Herendeen <u>Bay</u>
0.2	0.4	3.2	0.6	4.5	0.4
0.3	38.0	71.3	76.0	69.8	74.2
0.4	57.7	24.4	22.3	25.5	25.0
0.5	4.0	1.1	1.1	0.3	0.4
Sample					
Size	5 5 5	499	2,671	2,019	481

*All seine caught or nearly all seine caught except for Nelson Lagoon where the fish were all gillnet caught.

Table SI 1.

1987

ALASKA PENINSULA AREA
ESTIMATED SUBSISTENCE SALMON CATCHES

		Per	cmits	Percent		Projecte	ed Cato	ch (Fis	sh)	
Community	Is	sued	Returned	Returned	King	Sockeye	<u>Coho</u>	<u>Pink</u>	Chum	<u>Total</u>
Sand Point		84	62	73.8	87	2,018	1,508	1,160	1,114	5,887
King Cove	, ·	39	28	71.8	3	2,320	1,662	206	334	4,525
Cold Bay		30	24	80.0	0	620	155	13	54	842
False Pass		12	9	75.0	14	103	443	163	389	1,112
Nelson Lago	n	10	9	90.0	22	245	254	5	14	540
Port Heiden		10	7	70.0	66	193	229	0	36	524
Miscellaneou	ıs	6	5	83.3	1	<u>278</u>	8	0	2	289
Total Alaska	3.									
Pen. Area		191	144	75.4	193	5,777	4,259	1,547	1,943	13,719
j.										
Unalaska		81	49	60.5	0	1,097	378	1,780	151	3,406

AVERAGE SUBSISTENCE SALMON CATCH PER SUCCESSFUL PERMIT

Community	Kings	<u>Sockeye</u>	Coho	<u>Pinks</u>	Chums	<u>Total</u>
Sand Point	1.5	34.8	26.0	20.0	19.2	101.2
King Cove	0.1	80.0	57.3	7.1	11.5	156.0
Cold Bay (Local)	0	30.8	8.6	0.7	2.9	43.0
Cold Bay (Non-local)	0	16.5	0	0	0.5	17.0
False Pass	1.3	9.4	40.3	14.8	35.4	101.2
Nelson Lagoon	3.2	35.0	36.3	0.7	2.0	77.2
Port Heiden	6.6	19.3	22.9	0	3.6	52.4
Unalaska	0	25.5	8.8	41.4	3.5	79.2

Table SI 2.

1987 THIN POINT COVE SOCKEYE AND COHO SALMON CATCHES

SUBSISTENCE FISHERY

*Estimated		
Permit Holders	Sockeyes	Cohos
A	•	
15	1,226	966

COMMERCIAL FISHERY

Permit Holders

	7	1,182	3,403
Total	Harvest	2,408	4,369

*The number of subsistence permit holders fishing Thin Point Cove and the number of fish caught are extrapolated from permit returns.

The indexed total sockeye escapement was 8,700. This figure is probably close to but slightly under the actual figure. Coho escapement data was not sufficient to make an estimate.

Table SI 3.

1987 MORTENSEN'S LAGOON

SUBSISTENCE AND COMMERCIAL SOCKEYE - COHO CATCHES

<u>Esti</u>	mated Permits	Sockeyes	<u>Cohos</u>
Cold Bay Residents	17	538	104
King Cove Residents	1	0	150
Out of Area Residents	_4	_66	0
Total	22	604	254

The number of permit holders fishing Mortensen's Lagoon and number of fish caught are extrapolated from returned permits.

		Boats	<u>Sockeyes</u>	Cohos
Commercial C	Catch	2	335	1,050

The commercial catch includes all of statistical area 283-32, some of the fish may be going to other systems.

	•	Sockeyes	•	Cohos
Estimated Esc	apements	4,000	2,	500 - 5,000

The sockeye escapement is an indexed total, probably close but perhaps slightly lower than the actual. The coho estimate is a very rough estimate based on FRED Division observations during an egg take.

Table SI 4.

1987 ESTIMATED MIDDLE LAGOON (Morzhovoi Bay) SUBSISTENCE SALMON CATCHES

*Estimated Perm	<u>its</u>	<u>Sockeyes</u>	Cohos
4	*** *	776	8

The sockeye escapement indexed total was 7,000. No data is available for coho escapement numbers.

1987 REESE BAY (Unalaska Island) SUBSISTENCE SOCKEYE CATCH

*Estimated Permits

20

806

Sockeyes

The escapement estimated during a September 9, 1987 aerial survey were 600 live sockeye and 900 sockeye carcasses.

*The number of permit holders are number of fish caught are extrapolated from returned permits.

III. HERRING

Herring fisheries that have occurred in the Alaska Peninsula-Aleutian Islands Area may be broken down into the following:

- (1) Eastern Aleutians summer food/bait
- (2) South Peninsula winter food/bait
- (3) South Peninsula sac-roe
- (4) North Peninsula sac-roe

Other fisheries such as South Peninsula summer food/bait and Eastern Aleutians sac-roe may develop.

The South Peninsula winter food/bait fishery produced a harvest only during January and February of 1982 when 565 short tons were taken near Dent Point (Stepovak Bay). There was considerable effort by eight vessels during the winter of 1982-83 but no herring were landed. There has been no attempt to find winter herring since 1983.

Twenty five percent of the allowable South Peninsula harvest is allocated (by the Board of Fisheries) to the food/bait season (whether summer or winter), with the balance allocated to the sac-roe fishery.

The Eastern Aleutians (also known as the Dutch Harbor fishery) food/bait, North Peninsula, sac-roe, and South Peninsula sac-roe fisheries have all produced during at least each of the last six years.

Peninsula/Aleutians Management Area Eastern Aleutians Herring Food/Bait Fishery - 1987

A REPORT TO THE BOARD OF FISHERIES November 1987

Submitted by:

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FASTERN ALEUTIANS HERRING FOOD/BAIT FISHERY

INTRODUCTION

The Eastern Aleutian Islands herring food/bait fishery occurs in the waters around Unalaska and Akutan Islands primarily in the vicinity of Unalaska and Akutan Bays (Figure 1). This fishery, also known as the "Dutch Harbor herring fishery", has been occurring annually for the past 6 years, since 1981, and historically occurred over a ten year period from 1929 to 1938 (Table 1).

Currently the industry associated with this fishery consists of purse seine catcher vessels (one gillnetter participated in the 1987 fishery), which use large seines up to 250 fathoms long and approximately 25 to 35 fathoms deep, delivering to both shore-based and floating processing plants where the entire catch is frozen for either food or bait purposes. Periodically the herring concentrations leave the major harvest locations, however the industry can be mobile enough to follow the herring by using "tenders" and "floating processors" to move with the catcher vessels. Harvesting and processing efficiency and at times product quality tends to decline when this occurs.

Historically, the industry associated with this fishery was a mixture of gillnet and seine gear, holding pounds, and numerous small shore-based hand packing operations. A large portion of the catch was brined for either food or bait purposes; some product was frozen. Seine gear provided the bulk of the herring harvest, operating from "sardine seiner" size vessels.

Two noticeable similarities between the current and historical fisheries are the quality problems associated with feeding herring and the availability of herring when industry desires to harvest them. The former problem was overcome in the historical fishery by the use of holding pounds where seine caught herring were held until their stomachs became empty; gillnet caught herring created problems by requiring special handling to prevent spoilage. In the current fishery the use of shaved ice and super-chilled seawater in conjunction with rapid processing alleviates most of the feed related problems; when feeding conditions are severe the processors have suspended buying. Historically, the availability of herring was categorized into an early summer run

(late June to late July) and a late summer run (late August to early September). This pattern does not seem to hold in the current fishery as herring have been steadily harvested within the time period extending from July 16 through September 15, adverse weather and season closures notwithstanding.

Currently the annual harvest is limited by regulation to a 3,200 m.t. (3,525 s.t.) harvest ceiling; a limitation which has been in effect since the 1983 season. The 1981 and 1982 season had no regulatory harvest restrictions. however it was the dramatic harvest increase in 1982 over the initial 1981 harvest which created biological concern for the stocks being exploited and which resulted in the Board of Fisheries implementing a harvest ceiling of 3,200 m.t. (Table 1). The current biological concern is with the extent to which multiple exploitation occurs on Eastern Bering Sea spawning stocks. specifically the Bristol Bay, Nelson Island and Port Moller stocks which scale pattern analysis studies identified as comprising the Eastern Aleutian herring biomass. The extensive sac-roe fisheries occurring on these stocks coupled with the food/bait fishery on different proportions of these same spawning stocks creates an element of jeopardy for these stocks. In 1986 a modification of the harvest ceiling was implemented by ADF&G in response to the Board of Fisheries concern of the diminishing nature of the contributing stocks (primarily Togiak, to which the bulk of the Eastern Aleutian catch is estimated to be comprised). The cause for concern was triggered by a lack of recruitment in the spawning stocks. The 1986 harvest ceiling in the Eastern Aleutians was reduced from 3,200 m.t. by 30% to 2,225 m.t. (2,453 s.t.). This reduction was commensurate with the percentage reduction of the observed available Togiak spawning biomass between the springs of 1985 and 1986. The 1987 harvest ceiling was set at 2,116 m.t. (2,332 s.t.) to commensurate the 1985 to 1987 reduction in observed available Togiak spawning biomass.

During the four years that harvest ceilings have been in effect for this fishery, the actual harvest has been very closely contained to the desired levels. Maintaining a close fishery monitoring program and the generally good cooperation received from both the fishermen and processors involved have provided the in-season documentation needed to properly manage this fishery.

Historically there was no sac-roe fishery and there were no regulatory harvest restrictions for the food/bait fishery, consequently, the annual harvests reflected processing and marketing limits during the harvest years 1929 through 1939 and in 1945.

In the current fishery the annual season duration has varied from five (5) days in 1987 (7/16-19 and 7/23) to forty-six (46) days in 1983 (7/23 - 9/6). The earliest and latest landings have occurred on July 16 and September 6, respectively, although not during the same season. In Table 2 the season duration and first and last landing dates for each year of the current fishery are shown. Historically, the earliest documented harvest was June 15; the records are unclear as to when the latest harvest occurred and the duration for each years' fishery.

Harvest Location

Over the past six years, harvest locations have extended over an approximate 90 mile distance within the eastern Aleutians (Fox Islands group), extending westward from Tigalda Island to Makushin Bay (Figure 1). The vast majority of the harvest over the years however has been within about a 5 mile radius of shore-based processing facilities in both Unalaska Bay and Akutan Bay. Availability of herring is not entirely predictable. Weather conditions seem to determine daily herring movement and behavior patterns, hence abundance and availability. This has been particularly evident in the 1985 and 1986 fisheries where expectations, based upon the excellent 1984 fisheries performance, were for an extremely short fishery where ample quantities would be daily available within a one or two hour distance from shore-based processing plants. However, as has happened in three of the previous four years, commercial quantities of herring were periodically not available in "traditional" harvest locations. This necessitated exploration both eastward and westward until commercial quantities were found. As previously mentioned, the resultant long transporting trips on either a catcher or tender vessel increased the likelihood of less than desirable quality and economics for the industry.

<u>Gear</u>: This fishery is an open to entry fishery and legal gear types are seines and gillnets. The entire harvest for each of the years from 1981-1986 has been taken by purse seine gear; gillnet permits have been purchased for this fishery

however only slight effort have been documented (1987) during recent years. The seine gear is operated by large purse seine vessels, averaging about 50 feet in keel length, which also participate in the area M salmon fishery. The herring seines are large, up to 250 fathoms long and 25-35 fathoms deep, and their operation efficiency requires five or six men crews. The fish-finding electronics, e.g. sonar, onboard these vessels are critical to the fishing operation much as the airplane is to seiners in a sac-roe fishery. The occurrence and relative abundance of herring as related to the frequency and size of sonar targets observed by the fleet as a group on a daily basis yield insight into potential success; generally there is a fairly free exchange of information between all the vessels involved. Fleet efficiency is also enhanced by its ability to spread out and conduct "sonar searches" over a fairly large area when herring concentrations leave traditional fishing areas.

Processing: Annually, the shore-based processors purchase the overwhelming bulk of the herring harvested in this fishery; floating processors have been used each year however, they are limited by a daily handling capacity which can be considerably less than that of the shore-based plants. All of the processors associated with the herring fishery have floating processors and are heavily diversified into bottomfish, salmon, halibut, black cod, scallops, and all the Bering Sea and Peninsula crab fisheries. In 1987 some herring were tendered to shore plants in King Cove and Sand Point.

Fishery Value: The values shown in Table 1 represent estimates of total ex-vessel value. Information on value has not always been as readily available as other statistics for this fishery. Generally, the ex-vessel value for bait herring has exceeded that for food herring. Industry information indicates that foreign food markets currently have multiple sources of herring from European and Canadian stocks which have been cycling high in recent years, and while these E. Aleutian food herring are a suitable and desirable product, an ample and more reliable supply of food herring from other countries currently dominate that market. The bait product from this fishery has a more solid market in that it is used locally and in other fishing ports of Alaska as bait for the longline fisheries on cod and halibut and the king and Tanner crab fisheries. Bait demands have definitely been increasing in recent years and a premium is placed on quality bait, i.e. freshness and high oil content, by both

fishermen and processors. Overall, the ex-vessel value of bait herring has remained more stable than that for food. The proportions of the annual harvest which is bought as food and bait has been shifting gradually from less food product to more bait product, although as mentioned earlier, in 1986 the pack by product was split equally, while all but approximately 26 tons during the 1987 fishery was bought as bait.

ADF&G SUMMARY

The fishery is closely monitored through daily telephone, VHF radio and personal contact with fishermen and processors. Daily harvest estimates and specifics of harvest location are used for in-season management; they affect the ability to contain the harvest to the regulatory harvest level. Close fishery monitoring also ensures adequate and more representative sampling of the daily and seasonal exploitation on specific herring concentrations. The Bering Sea/Aleutian Islands area shellfish biologist with the aid of one seasonal employee was responsible for the management of this fishery for the first time in 1986 and again in 1987.

In 1987, 750 fish were collected during the four day period encompassing the season. Samples were collected and worked up in Dutch Harbor by one seasonal biologist; completion of sample work-up and initial analysis occurred in Kodiak using regional staff. No otoliths were collected this year since the otoliths collected in 1985 did not yield the expected increase in precision over that obtained from scales for stock identification purposes.

As in years past, the closure of the Eastern Aleutians harvest area was also responsible for the closure of that portion of the North Peninsula immediately adjacent to this harvest area. This includes the area from Cape Sarichef east to Cape Lieskof. The justification for this closure has always been the concern for excess multiple exploitation because of the very high likelihood that the same stocks exploited in the Eastern Aleutian area also occur in North Peninsula waters.

Biomass

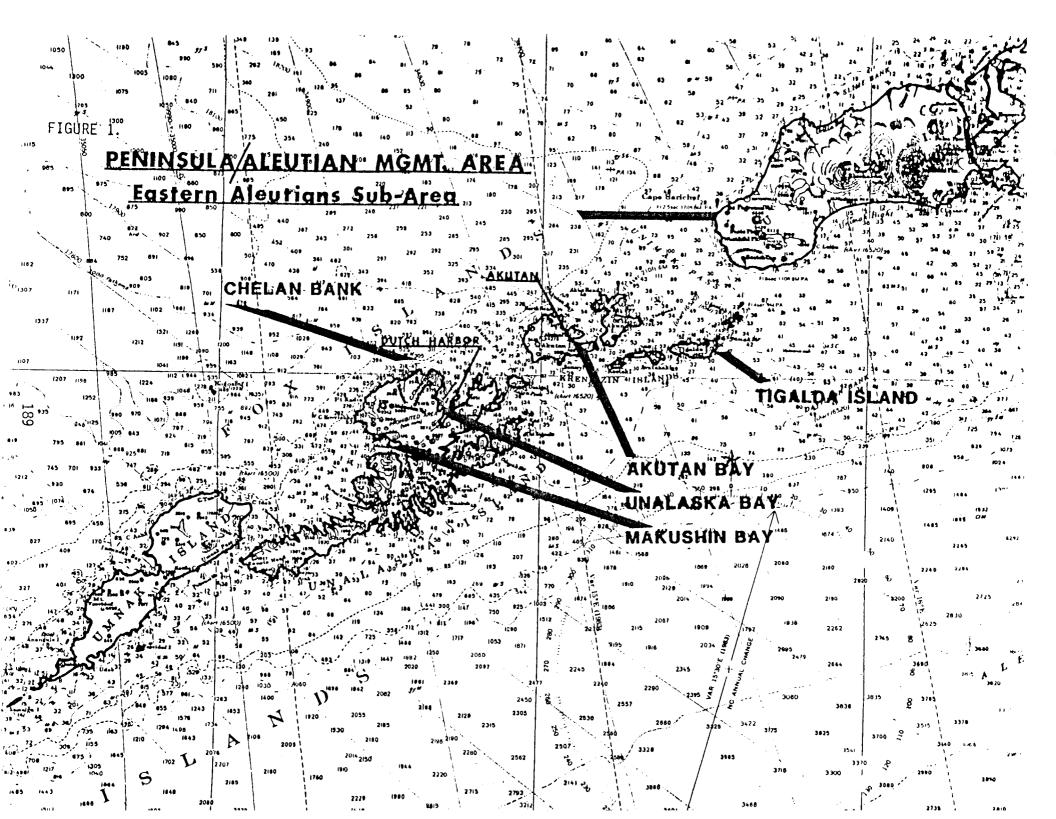
No documented estimates of the herring biomass available to this fishery have ever been made. The quantities which occur in the E. Aleutian Islands during

the food/bait season vary over time as schools of post-spawning and feeding herring migrate into and through this area. Miscellaneous observations from the Bering Sea during the summer months, in conjunction with information obtained from this fishery and from historical Russian and Japanese fisheries indicate a fairly wide dispersion of herring throughout the Bering Sea during the summer months when the E. Aleutians fishery is in progress. According to industry information the quantities of herring available to the E. Aleutians fishery since at least 1982 have been generally similar, i.e. there has been no noticeable significant decrease in herring abundance available to this fishery other than that attributed to the in-season climate and tidal influences observed annually. C.P.U.E. information supports these observations to a certain degree, the major influence of inclement weather on fishery duration notwithstanding.

1988-1989 Food/Bait Herring Management Plans/Issues

A Bering Sea herring management plan will be before the Board, for the second year, in order to address biological concerns associated with multiple exploitation of Bering Sea herring stocks. Because the Eastern Aleutian herring food/bait fishery, a mixed stock fishery, was the impetus for this plan, the 1988 Eastern Aleutian fishery will hinge upon Board action on this plan.

As indicated earlier, ADF&G initiated a reduction in the harvest ceiling for 1987 based upon post-season sac-roe stock status. This reduction was directly related to the relative reduction in biomass strength of the Togiak spawning biomass from a 1985 level of 132,201 s.t. to an early post-season estimate in 1987 of 88,133 s.t. This represented an approximate 33% reduction in biomass and the percentage reduction was applied to the harvest ceiling for the Eastern Aleutians food/bait fishery. The minimum projected Togiak available spawning biomass for 1988 is expected to be approximately 54,500 s.t. This represents a 42.5 percent reduction in available spawning biomass from the 1986 level and when applied to the 1985 food/bait harvest ceiling would result in an adjusted harvest ceiling for the 1988 Eastern Aleutians food/bait fishery of approximately 1,464 s.t. if the harvest strategy ADF&G applied in 1986 and 1987 is implemented for the 1988 season.



PENNINSULA/ALEUTIANS MANAGEMENT AREA EASTERN ALEUTIAN ISLANDS HERRING FOOD/BAIT FISHERY 'HISTORICAL INDUSTRY SUMMARY BY YEAR

YEAR	HARVEST IN SHORT TONS	NO. PROC.	NO. BOATS	NO. LNDGS	X TONS PER BOAT	X TONS PER LNDG	X \$ PER TON	\$ VAL (MILL)	X \$ PER	VSSL
1929	1259	*	*	* .	*	*	*		• •	
1930	1916	*	*	*	*	*	*	*		
1931	1056	12	26	*	· *	*	*	*	*	
1932	2510	12	30	*	*	*	*	*	•	•
1933	1585	12	38	*	*	*	*	*	. *	
1934	1533	9	*	*	*	*	*	*	*	
1935	2412	10	*	*	*	*	*	*	*	
1936	1379	8	* .	*	* *	*	*	*	*	
1937	579	*	*	*	*	. *	*	*	*	
1938	513	*	*	*	*	*	*	*	*	•
1939-44 N	O FISHERY									
1945	75	*	*	*	*	*	*	*	*	4
	O FISHERY			•					•	
1981	704	2	2	16	352	44	300 d.	211 0	.11	
1982	3565	6	7	95		37.5	300 1.	-	.15	
1983	3567	· 5	8	96		37.2		_	.10	
1984	3578	5	9 .			58.7			.68	
1985	3480	3	6	78		14.6		-	.09	•
1986	2394	4 '	7	53	_	15.2	_		.09	•
1987	2503	4	81/	45		55.6			.09	

^{1/}seiners only/one gillnetter participated.

PENNINSULA/ALEUTIANS MANAGEMENT AREA EASTERN ALEUTIANS HERRING FOOD/BAIT FISHERY HARVEST DURATION.BY. YEAR

YEAR~	Landin First	G DATE LAST	TOTAL NUMBER DAYS FISHED	NUMBER OF VESSELS	TOTAL THARVEST
1981	8/03	8/23	21	2	704
1982	8/05	9/12	39	6	3565
1983	7/23	9/06	46	5	3567
1984	7/17	7/27	11	5	3578
1985	7/17	8/11	26	3	3480
1986	7/16	7/28	13	4	2394
1987	7/16	7/23	41/	92/	2503

^{1/}closed 7/19, reopened for 14 hours on July 23.

^{2/} includes one gillnetter

EASTERN ALEUTIANS HERRING FOOD/BAIT FISHERY PERCENT AGE COMPOSITIONS (%) BY YEAR

YEAR	AGE	3	4	5	6	7	8	9	10	11+
1981		15	45	20	6	0	12	2	0	. 0
1982	Ar ·	5	10	62	10	6	8	4	0	0
1983		0	1	19	69	5	1	4	1	. 0
1984		0	0	2	14	65	. 7	3	8	1
1985		0	0	1	8	32	50	5	3	1
1986		0	0	1	1	13	37	42	3	3
1987		0	0	0	0	2	12	41	34	11

ALASKA DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES

ALASKA PENINSULA - ALEUTIAN ISLANDS MANAGEMENT AREA

SAC ROE HERRING REPORT

TO THE

ALASKA BOARD OF FISHERIES

FALL 1987

Submitted by: Len Schwarz

Assistant Area Management Biologist

ARFA DESCRIPTION

The Peninsula/Aleutian Management area is described as statistical area "M", which includes South Peninsula and Aleutian waters west of Kupreanof Point to the International Date Line and North Peninsula waters extending from the International Date Line east to Cape Menshikof (Figure 1).

INTRODUCTION

By regulation, the commercial herring sac-roe season in area "M" extends from April 15 through July 15. During the 1987 season, commercial deliveries occurred from May 9 through June 19. The total Peninsula harvest of 831 short tons was average when compared to the last five years; no sac-roe harvest occurred in the Aleutian Islands (Table 1). Twenty seven purse seine vessels made deliveries to the five companies that were present to buy fish. The average roe recovery percentage was 10.4% with the fishery worth approximately \$593,000 to the fishermen.

NORTH PENINSULA

Historical Perspective:

The observed presence of commercial quantities of sac-roe herring on the North Peninsula has been centered around Port Moller and Herendeen Bay. No commercial herring landings occurred in the area until 1982 when 506 tons were harvested (Table 1).

Prior to 1982, there had been reports that in some years herring were present during the spring near the Peter Pan dock in Port Moller, however, abundance was unknown. Numerous schools of herring were documented in the Herendeen Bay area during 1976 through department aerial surveys. Since 1980 department field crews have been placed in the bay every year and have caught herring in test nets. The first year that aerial surveys were able to locate herring schools in Port Moller Bay (and thus document biomass estimates for both Moller and Herendeen Bay) was 1984. Fishing vessels destined for the Togiak fishery frequently stopped in the Port Moller area in past years to prospect for herring, however, there were no reported landings prior to 1982 (Table 1). Since 1982, a commercial sac-roe fishery has developed in both Moller and

Herendeen Bays and along the Bering Sea coast eastward from Port Moller for a short distance (Table 2). The run timing of these stocks appear to be slightly later than the Togiak stocks.

1987 North Peninsula Summary:

The entire North Peninsula opened to commercial herring fishing by regulation on April 15, however the first delivery was not made until May 9. The herring fishery occurred only in the Port Moller District (Figure 2) with 27 seiners landing 512 tons during a 28 day period, from May 9 through June 5 (Table 3). The average roe recovery was 10.6% with an average price of \$650 for 10% roe recovery, with \pm \$65 for every percentage point above or below 10%. The fishery was worth approximately \$350,000 to the fishermen.

As in 1986, the closure of the Togiak fishery before the Port Moller fishery was underway resulted in a large fleet going to Port Moller. Sixty-one and 40 purse seine vessels were present for the 1986 and 1987 fisheries respectively. Only 27 of the 40 vessels present in 1987 made deliveries. Also, of the 5 companies represented by 13 tenders, 2 processing vessels, and a shore based plant, only 4 companies, 1 processing vessel, and 4 tenders participated in the fishery.

Preseason:

Prior to the 1987 North Peninsula sac roe herring season, harvest guidelines totaling 450 short tons were established within the Port Moller District. This was a reduction from the 1,125 ton guideline which was in effect during the 1986 season. The 1987 guideline harvest level was lowered after the 1986 season because intensive industry and department surveys failed to document significant biomass. The 1987 guideline harvest level was split into 3 sections to prevent overharvest of discrete local stocks, with 150 tons in Herendeen Bay, 25 tons in Deer Island and 275 tons from Moller Bay to Bear River.

Fishery:

Fishing effort concentrated in the Herendeen Bay/Deer Island area on May 10 and 11. After a harvest of 161 tons Herendeen Bay/Deer Island waters south of a line from Point Edwards to Hot Springs were closed at 8:00 P.M. May 11. The

bulk of the harvest was taken around Point Divide, Village Spit, and Deer Island. The average set was estimated at 2-3 tons.

Deliveries from the head of Moller Bay began on May 9 and continued until May 19 at 6:00 P.M., when the head of Moller Bay (waters south of the latitude of Hot Springs) was closed. These waters were closed in order to spread the harvest throughout the entire area, preventing the possible overharvest of discrete stocks. The majority of the 111 tons harvested was taken from the south shore of right head. The average roe recovery was 8.3%, however the last 52 tons harvested on May 19 averaged only 6.9% and was composed of a mixture of spawnouts, green, and ripe fish. The size of the sets was extremely small averaging less than 1 ton.

After the head of Moller Bay closed on May 19 fishing vessels began to leave, and by May 26 very few vessels remained. On June 2, 5,000 tons of herring were sighted in Moller Bay waters that were open to commercial herring fishing (waters north of the latitude of Hot Springs). Catches occurred on June 2, 4, and 5 and then stopped, as fish were not visible after this date. This area was not closed during the 1987 season with the entire Moller Bay/Bear River harvest of 352 tons well within the 0-20% exploitation range.

Biomass:

During both the 1986 and 1987 seasons intensive aerial surveys were conducted by the industry, with 20 and 7 aircraft present respectively. During both seasons neither industry nor department surveys documented any significant biomass during May. Unlike most Bering Sea herring fisheries, Port Moller herring seem to appear quickly and then disappear without leaving much observable spawn. During the 1987 season an estimated 5,000 tons of herring were spotted by a department observer on June 2 near the Port Moller cannery (Table 4). Very little spawn was documented, about 1/4 mile near Frank's Lagoon on June 2 and several small spawns near Point Divide.

Age Class Composition:

The age class composition of the commercial catch is listed in Table 5, Figure 3. The age composition of Moller Bay herring is fairly evenly distributed between ages 4 through 9. This structure indicates a fairly stable population.

Herendeen Bay herring have a significant representation of ages 5 through 9 but lack the showing of 4 year olds that Moller Bay had. The Herendeen age structure still indicates a fairly stable population. Age class composition taken from the commercial catch has limitations because the samples are taken during the short period that the fishery occurs, not necessarily during the entire run. For this reason this data should be used only as a general indication of population trends.

SOUTH PENINSULA

Historical Perspective

The South Peninsula herring sac-roe fishery began to develop in 1979. Significant landings occurred in 1980 (453 tons), and peaked in 1981 (716 tons) (Table 1). A regulation closed the South Peninsula sac-roe fishery in 1983 in favor of a food and bait fishery. The food and bait fishery did not develop and the sac-roe season was reopened during the 1984 season. During the years in which a harvest occurred, landings were reported from sixteen separate geographical locations, of these only Canoe Bay produced a harvest each year (Table 6). Beginning in 1984 the Board of Fisheries established that the fishery would be managed to allow a sac-roe as well as food and bait harvest. The food and bait fishery has not developed.

From 1981 through 1987 ADF&G has deployed field crews along the South Peninsula to gather biological data and to monitor the commercial fishery. Crews have been stationed in Canoe Bay each season (1981-1987) and intermittently in the other harvest locations or in locations of suspected commercial fishery potential. The crews have been successful in collecting samples and documenting spawning. Aerial fixed wing surveys have been utilized with limited success due to the large area involved and the sporadic and unpredictable appearance of the fish.

1987 South Peninsula Summary

The harvest strategy on the South Peninsula is to allow 75% of the available harvest to be taken as sac-roe with the remaining 25% reserved for a food and bait fishery. Harvest guidelines were established preseason based on past fishing performance and general information on stock size gathered from department and industry aerial surveys. Due to a trend in decreasing stock size,

Stepovak Bay remained closed during the 1987 season. Areas where little information on stock size was known were left open for exploration.

The commercial sac-roe fishery on the South Peninsula occurred in five geographic locations; Canoe Bay, Pavlof Bay, Lenard Harbor, Belkofski Bay, and Dolgoi Bay, with 37% of the harvest occurring in Canoe Bay (Table 7). From June 8 to June 19, 319.0 short tons were harvested by a small number of purse seiners who also fished on the North Peninsula. The average roe recovery was 10.15% with an average price of \$750/ton for 10% roe recovery making the value of the fishery approximately \$243,000 to the fishermen.

The Board of Fisheries has directed the staff to harvest 75% of the allowable harvest for sac roe and the remaining 25% for food and bait. Due to the small harvest guideline involved and the large harvesting potential of a purse seine vessel, the entire guideline may be taken before a closure can be announced. When this happens the area is closed for both sac roe and food and bait so that the overall guideline will not be exceeded. This was the case in Pavlof, Canoe and Belkofski Bays. Pavlof and Canoe Bay were closed to both sac roe and food and bait herring at midnight June 13 with a combined catch of 209.4 tons, slightly over the 200 ton guideline. Belkofski Bay was closed to both sac roe and food and bait herring at noon June 18 with a catch of 37 tons, slightly over the harvest guideline of 30 tons. Other South Peninsula waters were open for exploration but no catches were made.

Intensive aerial surveys to document spawning biomass were not possible in 1987 because the herring fishery took place during the middle of the June salmon fishery and because of a reduction in department personnel from 9 in 1986 to 5 in 1987. Even under the best of circumstances biomass estimates on the South Peninsula are difficult to obtain because of the large area involved and because of the sporadic and unpredictable appearance of the fish.

Age Class Composition:

The dominant age class on the South Peninsula was age 7 as expected (Table 8, Figure 4). Much needed recruitment was also noted with age 3 and 4 making up 32% of the population. This age structure indicates a stable to expanding population, however age class structure can only be used as a possible indication of population trends with the absence of accurate biomass estimates.

1987 Season Management Strategy and Issues:

There are no public proposed regulation changes for the Area M sac-roe fishery. Staff proposals are housekeeping in nature and concern rectifying and clarifying district and section boundaries.

The department's 1987 biomass estimate of 5,000 tons in Port Moller will allow a harvest of 500-1,000 tons. A trend has developed during the past two seasons of a large fleet arriving in Port Moller after the Togiak fishery closes. Since the entire Peninsula Area has opened by regulation on April 15 the fleet and intensive spotter effort has effectively taken the allowable harvest from the fish that arrive first. This large harvesting potential present coupled with small harvest guidelines, makes overharvest very possible. Sixty seine vessels and 20 spotter aircraft were present to harvest 100 tons of herring from Herendeen Bay in 1986. Run timing and some limited age class data, indicate that there may be two stocks returning to the Moller District. If the trend of heavily harvesting the first fish that appear in early May continues, a discrete stock may be damaged.

During the 1988 season the Moller District will remain closed until late May unless significant biomass is sighted earlier. This strategy should ease the pressure which has been extracted on early returning herring, delaying the harvest until late May, early June, which has been when large biomasses have been documented.

No change in management strategy is anticipated on the South Peninsula, however harvest guidelines will be raised slightly due to the increase in recruitment noted in 1987.

Table 1.

ALASKA PENINSULA-ALEUTIAN ISLAND AREA
HERRING SAC-ROE HARVESTS 1
(Short Tons)

Year	South <u>Peninsula</u>	Aleutian <u>Islands</u>	North <u>Peninsula</u>	Total
1979	10	-	-	10
1980	454	-	-	454
1981	716	-	-	716
1982	138	-	506	644
1983	-	-	627	627
1984	211	-	431	642
1985	345	-	716	1,061
1986	281	-	88 9	1,170
1987	319	-	512	831

 $^{^{1}}$ Harvest figures have been updated and corrected based on finalized fish ticket data.

Table 2.

ANNUAL HARVEST OF PORT MOLLER HERRING
BY GEOGRAPHICAL AREA

Location	1982	<u>1983</u>	1984	<u>1985</u>	1986	1987
Deer Island	-	-	-	73	41.5	
Herendeen Bay	280	510	181	100	112.5	160.81/
Moller Bay	180	36	250	256	261.4	344.3
Bear River/ E. Bering Sea Coast	46	_81		287	473.5	7.3
TOTAL	506	627	431	716	888.9	512.4

 $[\]frac{1}{4}$ At least 11 tons were taken around Deer Island.

Table 3. 1987 North Peninsula Commercial Sac Roe Herring Harvest (short tons) $\frac{1}{2}$

DATE			AR	EA				
	Herendeen Bay	Roe %	Moller Bay ² /	Roe %	Bear River3/	Roe %		
May 9	-		19.79	7.12%	-			
May 10.	$120.04^{4/}$	10.44%	19.00	12.62%	7.30	12.04%		
May 11	40.745/	40.74 ⁵ / 9.31%		19.80 8.99%		-		
May 19	CLOS	ED	52.38	52.38 6.90% -				
June 2	CLOS	ED	CLOS	ED	113.20 <u>6</u> /	12.51%		
June 4	CLOS	ED	CLOS	ED	91.46 ⁷ /	12.23%		
June 5	CLOS	ED	CLOS	ED	28.70 <u>8</u> /	9.77%		
SECTION TOTALS	160.78	10.15%	110.97	8.29%	240.66	12.06%		
NORTH PENINSULA TOTAL			512.41 shor	t tons	10.64% roe reco	overy		

 $[\]frac{1}{H}$ arvest figures represent processed herring boxed weights.

 $[\]frac{2}{M}$ Moller Bay waters south of the latitude of Hot Springs.

 $[\]frac{3}{2}$ Bear River and Moller Bay waters north of the latitude of Hot Springs.

 $[\]frac{4}{4}$.14 tons of which was documented from Deer Island.

 $[\]frac{5}{6.65}$ tons of which was documented from Deer Island.

^{6/}Harvested near Harbor Point.

^{//}Harvested near Egg Island.

^{8/}Harvested near Harbor Point.

Table 4. Alaska Department of Fish and Game North Peninsula Herring Aerial Surveys.

DATE		AREA	
	Herendeen Bay	Moller Bay	Bear River
May 6	0		-
May 7	0	-	- .
May 10	0	0	-
May 11	0	0	0
May 15	0	15	-
May 16	0	0	-
May 17	. •	-	0
May 19	- 2	0	-
May 241/	0	-	-
May 30		-	0
May 31	-	÷	0
June 1	0	0	-
June 2	0	5,000	<u>2</u> /
June 3	0	110	. 0

 $[\]frac{1}{A}$ lso surveyed previously documented spawning grounds, Crow Point to Bluff Point and southern abandoned cannery to northern abandoned cannery. No spawn sighted.

 $[\]frac{2}{\text{The 5,000}}$ tons seen on June 2 were spotted between Bear River and Harbor Point.

Table 5.

NORTH PENINSULA SAC-ROE HERRING AGE CLASS COMPOSITION FROM COMMERCIAL SEINE SAMPLES, 1987

<u>Date</u>	Sample Size		3	4	5	Age 6	Class %	8	. 9	10	11+
Date		ER SECTION	<u> </u>						<u> </u>	10	117
	TIMIER POLI	ER SECTION									
5/10	111		1	2	13	33	14	14	24	10	-
5/19	178		5	21	35	34	27	11	20	25	-
6/3	86		1	20	2	15	5	18	20	5	-
TOTAL	375	%	2	11	13	22	12	11	17	11	-
	OLETED MOLL	ED CECTION									
	WIER MULI	LER SECTION									
5/10	33		-	-	2	3	3	7	17	1	-
6/5	99		2	48	9	14	5	11	8	3	-
TOTAL1/	99	%	2	48	9	14	5	11	8	3	-
	<u>HERENDEEN</u>	BAY SECTION	Ā								
5/10	184	%	2	4	22	24	17	13	10	6	2
	BEAR RIVE	r section									
5/10	27	%	-	4	-	19	11	44	11	11	-

 $^{1/\}text{The 5/10}$ sample was not used to calculate total age class composition because of the low abundance of fish present (7 tons harvested 5/10 vs. 232 tons harvested 6/5). Also there was nearly 1 month separating the samples.

Table 6.

SUMMARY OF SOUTH PENINSULA HERRING SAC-ROE LANDINGS BY AREA

(Based on Finalized Fish Ticket Data, Short Tons)

Location	1980	1981	1982	19831/	1984	1985	<u> 1986²/</u>	1!
				C				*
Island Bay	154	6		Ĺ				
Ramsey Bay	42	27		0	30	11		
Clarks Bay		29		S				
Orzenoi Bay		60		Ε				
American Bay				D				
Balboa Bay		36	5		25			
Beaver Bay	132			T				
Little Coal Bay	114			0				
Pavlof		225				95	61	91
Canoe Bay	12	168	133	S	156	239	140.5	117
Volcano/Dolgoi Is.		65		Α			13	
Iliasik Island		6		С				
Belkofski Bay		9		R			8	37
King Cove		7		0				
Lenard Harbor	-	78		Ε			59	59
Dolgoi Harbor								12
TOTAL	454	716	138	FISHING	211	345	281.5	319

 $[\]frac{1}{The}$ entire South Peninsula was closed to sac-roe herring fishing in 1983 in favor of a bait fishery that never developed.

 $[\]frac{2}{\text{Stepovak Bay}}$ (Kupreanof Point to Swedania Point) was closed in 1986 and 1987 due declining biomass trends.

Table 7. South Peninsula Commercial Sac-Roe Herring Catches (short tons) $\frac{1}{2}$

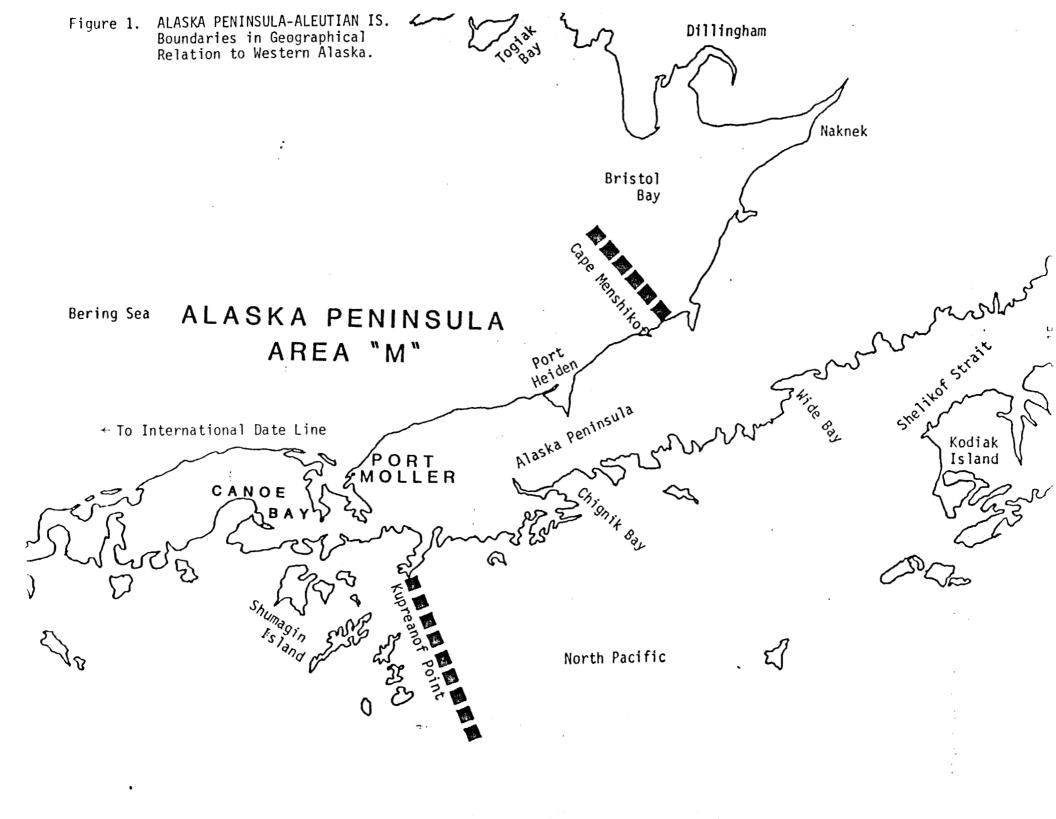
AREA	DATE	SHORT TONS	ROE %
Pavlof Bay	June 8	91.7	10.20%
Canoe Bay	June 8	57.3	10.2 %
	June 13	60.4	10.56%
Canoe Bay Total		117.7	10.38%
Belkofski	June 14	16.0	10.05%
	June 17	21.8	8.33%
Belkofski Total		37.8	9.05%
Dolgoi	June 14	12.3	10.61%
Lenard Harbor	June 15	20.9	10.66
	June 19	38.6	9.96
Lenard Harbor Tota	11	59.5	10.2 %
SOUTH PENINSULA TO	DTALS	319.0	10.15

 $[\]frac{1}{\text{Harvest}}$ figures represent processed herring boxed weights.

Table 8.

SOUTH PENINSULA SAC-ROE HERRING AGE CLASS COMPOSITION FROM COMMERCIAL SEINE SAMPLES, 1987

	Sample					Age	e Class	%			
<u>Date</u>	Size		3	4	5	6	7	8	9	10	<u>11+</u>
	CANOE BAY										
6/8	135		28	40	3	9	43	5	5	-	-
6/14	142		41	36	1	4	52	3	3	1	1
TOTAL	277	%	25	28	1	5	34	3	3	-	-
	PAVLOF										
6/8	85	%	6	18	5	11	48	9	2	1	-
	LENARD HAT	RBOR									
6/15	97		28	9	-	2	60	-	1	-	-
6/19	159		144	3	-	5	5	1	1	-	
TOTAL	256	%	67	5	-	3	25	_	-	-	-



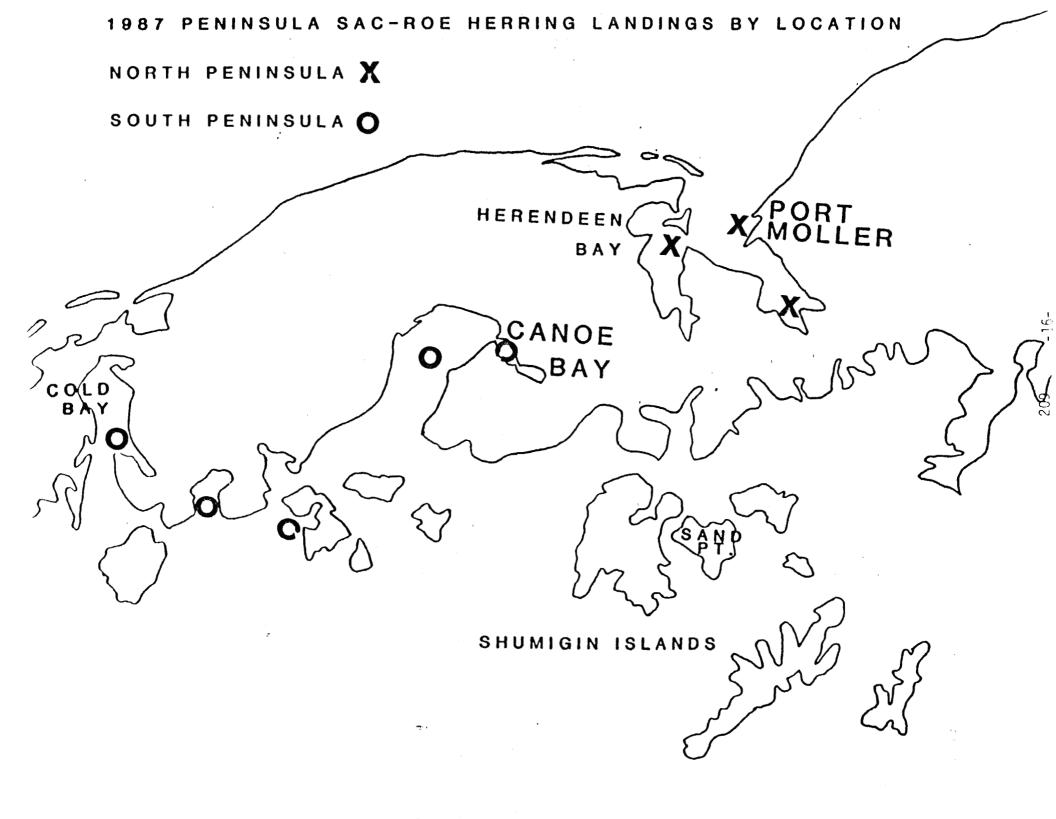


Figure 3. North Peninsula Commercial Sac-Roe Herring Age Frequency Comparisons by Area by Year.

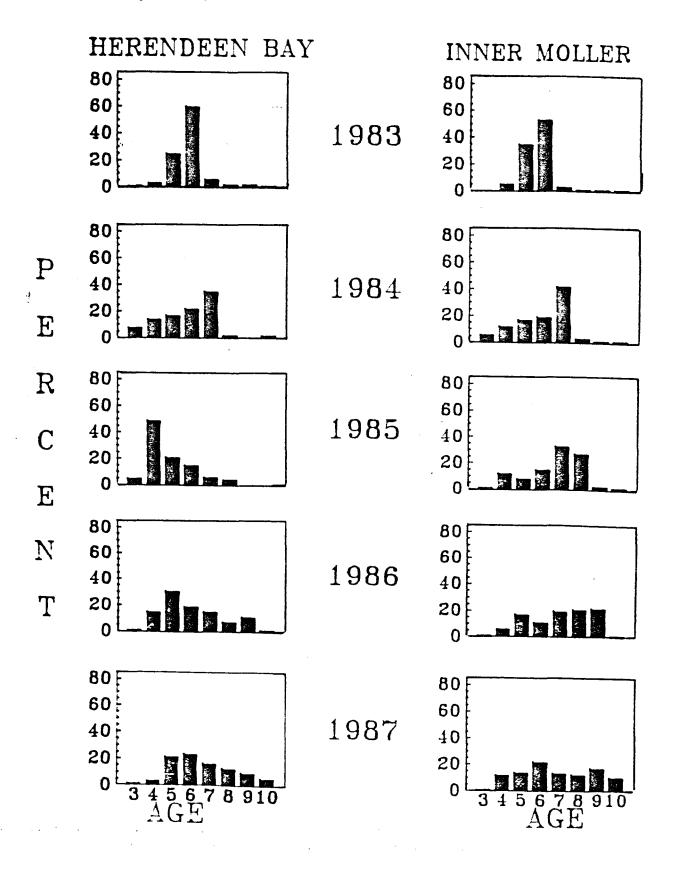
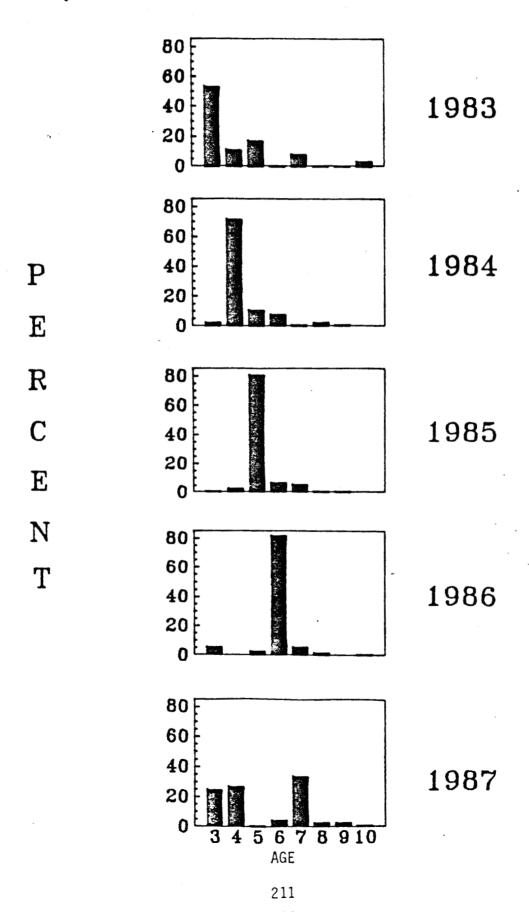


Figure 4. Canoe Bay Commercial Sac-Roe Herring Age Frequency Comparisons by Year.



1988 HERRING CATCH PROJECTIONS

Eastern Aleutians (Dutch Harbor) Summer Food/Bait Fishery

During the November 1987 Board of Fisheries meeting a Bering Sea Herring Fisheries Management Plan was adopted. To ensure the conservation of herring stocks, it was adopted that the overall exploitation of a herring stock should not exceed 20% of the spawning biomass. In the case of the Togiak spawning stock an allocation between the sac-roe fishery, spawn on kelp fishery, and the Dutch Harbor food and bait fishery was made so that the combined exploitation of these fisheries did not exceed 20% of the spawning biomass. The number of fishermen involved and the value of the fishery were factors considered by the Board when making the allocations between the fisheries. The Bering Sea Management plans defines under what conditions and to what extent there will be a Dutch Harbor food and bait fishery. The elements governing the food and bait fishery are listed below:

- l. The Dutch Harbor food and bait fishery quota is determined through the following calculations:
 - A. The desired exploitation rate (maximum of 20%) is applied to the estimated Togiak spawning biomass. This figure represents the total combined allowable harvest to be extracted by the Togiak sac-roe fishery, spawn on kelp fishery, and the Dutch Harbor food and bait fishery.
 - B. The spawn on kelp fishery is allocated 1,500 tons of herring.
 - C. The Dutch Harbor fishery is allocated 7% of the remaining allowable harvest (after the 1,500 ton spawn on kelp allocation has been subtracted from the total allowable harvest).
 - D. The Togiak herring sac-roe harvest allocation is the remainder of the total allowable harvest after the spawn on kelp and Dutch Harbor allocation have been subtracted.
- 2. If the herring sac-roe harvest in the Togiak District exceeds its allocation by more than 20 percent, the department shall deduct the amount of herring that exceeds the Togiak District herring sac-roe allocation from the Dutch Harbor fishery allocation for that season.
- 3. If the Togiak District herring sac-roe fisheries do not take their allocation the unharvested amount of herring will be added to the Dutch Harbor fishery allocation. When an increase of the Dutch Harbor fishery allocation is made

under this section, the total allocated harvest may not exceed 3,100 short tons.

4. When the Togiak District is below its threshold, the Dutch Harbor fishery will be closed for that season.

1988 DUTCH HARBOR FOOD AND BAIT HERRING HARVEST PROJECTION:

The size of the 1988 Togiak herring biomass is difficult to project because the exact amount of recruitment and natural mortality are not known. However an estimated 54,500 short tons of herring are projected for the 1988 spawning biomass in Togiak. The overall stock exploitation is set at a maximum of 20%, or 10,900 short tons in 1988. A tonnage of 1,500 is subtracted to account for the spawn on kelp fishery, leaving 9,400 short tons for the Togiak sac-roe and Dutch Harbor fisheries. As stated in 1C above, the Dutch Harbor quota is set at 7% of the remaining allowable harvest after the spawn on kelp allocation has been subtracted. If the 1988 projection is correct and the sac-roe harvest matched the sac-roe allocation, then the 1988 Dutch Harbor quota would be set at 658 tons.

54,500	Projected Togiak Spawning biomass
<u>x 20%</u>	desired exploitation.
10,900	TOTAL ALLOWABLE HARVEST
- 1,500	SPAWN ON KELP ALLOCATION
9,400	
<u>x 7%</u>	
658	DUTCH HARBOR QUOTA
10,900	TOTAL ALLOWABLE HARVEST
- 1,500	SPAWN ON KELP ALLOCATION
- 658	DUTCH HARBOR QUOTA
8,742	TOGIAK SAC-ROE ALLOCATION

Again the above figures are preseason estimates. The actual Togiak biomass, the amount of overharvest or underharvest in Togiak are factors which will affect the Dutch Harbor food and bait herring quota.

Table H 1.

1988
PENINSULA/ALEUTIANS
HERRING SAC-ROE HERRING GUIDELINE HARVEST LEVEL (TONS)

SOUTH PENINSULA

LOCATION	SAC-ROE HARVEST	BAIT HARVEST	TOTAL HARVEST
Sand Point District			
Stepovak Bay Section	19	6	25
Balboa Bay Section	15	5	20
Beaver Bay Section	23	7	30
Pavlof District			
Pavlof Bay Section	75	25	100
Canoe Bay Section	131	44	175
General Section (Vol	cano Bay) 23	7	30
King Cove District			
Belkofski Section	23	7	30
Cold Bay Section	68	22	90
Deer Island Section	23	7	30
Guideline Harvest Tota	ls 400	130	530 <u>1</u> /

NORTH PENINSULA

Port Moller District2/					
Guideline Harvest Totals	500-1,000	500-1,0001/			
ALEUTIAN ISLANDS DISTRICT:		Exploration			

 $[\]frac{1}{\sqrt{\text{Does not include harvests}}}$ that may occur in sections open for exploration.

^{2/}Parts of the Port Moller District may be closed before the District harvest guideline is taken, in order to prevent the overharvest of discrete spawning stocks within the District.

- (3) no drift gill net used in the Nelson Lagoon Section may exceed 29 meshes in depth, except that after August 15 no drift gill net may exceed 38 meshes in depth.
- (b) The size and operation of set gill nets is as follows:
- (1) each set gill net shall not be more than 100 fathoms in length; the aggregate length of set gill nets fished by an individual shall not be more than 200 fathoms; no more than two set gill net sites shall be operated by an individual except that in the
- (A) Port Heiden Section each set gill net shall not be more than 50 fathoms in length; the aggregate length of set gill nets fished by an individual shall not be more than 100 fathoms, and no more than two set gill net sites shall be operated by an individual;
- (B) Ilnik Lagoon (portion of the Ilnik Section): each set gill net shall not be more than 50 fathoms in length; the aggregate length of set gill nets fished by an individual shall not be more than 150 fathoms, and no more than three set gill net sites shall be operated by an individual;
- (2) set gill nets shall be operated in substantially a straight line; no more than 30 fathoms of each set gill net may be used as a single hook;
- (3) the mesh size of set gill nets shall not be less than five and one-quarter inches, except that in the Caribou Flats Section the mesh size of set gill nets shall not be less than eight and one-half inches;
- (4) the maximum depth of set gill nets used in the Nelson Lagoon Section shall not be over 29 meshes:
- (5) in the Unimak, Southwestern, South Central, and Southeastern Districts, 10 fathoms of seine webbing may be used on the shoreward end of a set gill net; the shoreward end of the seine webbing must be attached to the beach above low tide.
- 5 AAC 09.332. SEINE SPECIFICATIONS AND OPERATION. (a) Purse seines and hand purse seines may not be less than 100 fathoms nor more than 250 fathoms in length.
- (b) Leads may not be less than 50 fathoms nor more than 150 fathoms in length, except that leads of any length may be used in the Unimak District and the Bear River Section. Only one lead may be used with a seine. A lead may be attached to only one end of a seine. Leads of any length may be carried onboard vessels in the Ikatan Bay Section.
- 5 AAC 09.334. IDENTIFICATION OF GEAR. (a) Each drift gill net in operation must have at each end a bright red keg, buoy or cluster of floats plainly and legibly marked with the permanent vessel license plate (ADF&G) number of the vessel operating the gear as well as the initials of the operator; bright red double floats must be attached to the cork line at 25 fathom intervals.
- (b) Each set gill net in operation must be identified as required by 5 AAC 39.280.

- 5 AAC 09.335. MINIMUM DISTANCE BETWEEN UNITS OF GEAR. No part of a set gill net may be set or operated within 900 feet of any part of another set gill net, except that in the
- (1) Port Heiden Section no part of a set gill net may be set or operated within 600 feet of any part of another set gill net:
- (2) Nelson Lagoon Section no part of a set gill net may be set or operated within 1,800 feet of any part of another set gill net.
- 5 AAC 09.350. CLOSED WATERS, Salmon may not be taken in the following locations:
- (1) Meshik River: all waters upstream of a line crossing the river from a point at 56° 47' 04" N.lat., 158° 41' 06" W.long., to 56° 47' 58" N.lat., 158° 38' 45" W.long.; this is approximately one-half nautical mile upstream from the mean high tide mouth and approximately at the lower line of permanent grass growth;
- (2) Sandy River
 - (A) May 1 through July 26; within 2,000 yards of the terminus of the river;
 - (B) July 27 through September 30: within 500 yards of the terminus of the river;
- (3) Bear River
 - (A) May I through August 8: within 1,000 yards of the terminus of the river;
 - (B) August 9 through September 30: within 500 yards of the terminus of the river;
- (4) Frank's Lagoon: all waters of the lagoon and within 500 yards outside the entrance;
- (5) Bechevin Bay
- (A) Saint Catherine Cove (Mike's Creek): all waters within 1,000 yards of the stream located at 55°00' 48° N.lat., 163°31' 33" W.long.;
- (B) Trader's Cove: all waters north and east of a line from Morzhovoi Village (54° 54′ 45″ N.lat., 162° 18′ 15″ W.long.) to the base of Trader Mountain (55° 00′ 05″ N.lat., 162° 18′ 22″ W.long.);
- (C) Warmsprings Bay: all waters southeast of a line from a point on the south shore of the bay at 54° 56′ 28″ N.lat., 163° 15′ 45″ W.long., to a point on the north shore of the bay at 54° 57′ 16″ N.lat., 163° 15′ 33″ W.long.;
- (6) Christianson's Lagoon: all waters of the lagoon and its exit channel from the lagoon to a point 1,500 yards downstream from the lagoon;

- (7) Ikatan Bay: all waters within 1,000 yards of the stream at 54° 45′ 15″ N.lat., 163° 15′ 15° W.long, on the north shore of the Ikatan Peninsula which exits from Swede's Lake:
- (8) Morzhovoi Bay: all waters including Littlejohn Lagoon north and west of a line from the easternmost tip of Kenmore Head to Reynolds Head (55° 9 'N.lat., 162° 57' 51" W.long.) before July 7; beginning July 7:
 - (A) Middle Lagoon: all waters of the lagoon and within 1,000 yards of its entrance:
- (B) Littlejohn Lagoon: all waters of the lagoon and within 500 yards of its entrance at the narrows:
- (9) Thin Point Cove and Lagoon: all waters north and west of a line from the tip of Thin Point westward to a point on the shore at 54° 57′ 30″ N.lat., 162° 43′ 15″ W.long.;
- (10) Cold Bay
- (A) Old Man Lagoon, Mortensen Lagoon and Nurse Lagoon: all waters of the lagoons and within 500 yards outside their entrances;
- (B) Lenard Harbor: all water east of a line from a point on the south shore at 55°06' N.lat., 162°23' W.long., to a point on the north shore at 55°07' N.lat., 162°23' W.long., and within 1,000 yards of any salmon stream;
- (C) Kinzarof Lagoon area: all waters north of a line from 55° 13'25" N.lat., 162° 43'25" W.long., to 55° 16'10" N.lat., 162° 34'25" W.long.;
- (11) Deer Island
- (A) all waters within 200 yards of the stream located at 54°55'41" N.lat., 162°14'12" W.long, and locally known as Eastern Creek.
- (B) all waters within 200 yards of the stream located at 54°51'44" N.lat., 162°22'07" W.long, and locally known as Southern Creek;
- (12) Belkofski Bay: all waters north and east of a line from 55° 09'22" N.lat., 162° 08'12" W.long., to 55° 08'08" N.lat., 162° 07'03" W.long., then to 55° 07'20" N.lat., 162° 07'39" W.long.;
 - (13) Volcano and Bear Bay
- (A) all waters north of a line from 55° 13'24" N.lat., 162° 01'24" W.long., to 55° 13'51" N.lat., 161° 58' W.long.;
- (B) all waters of Bear Bay west of 162° W.long. and locally known as Little Bear Bay;
 - (14) Longjohn Lagoon: all waters of the lagoon and within 500 yards outside its entrance;

- (15) Paylof Bay
- (A) Chinaman Lagoon and Jackson Lagoon; all waters of the lagoons and within 1,000 yards outside their entrances;
 - (B) Dry Lagoon: all waters of the lagoon and within 500 yards of its entrance;
 - (C) Canoe Bay
- (i) June 1 through July 15: all waters east of a line from the stream guard cabin point at 55° 32′ N.lat., 161° 12′ W.long. to a point on the north shore at 55° 32′36″ N.lat., 161° 12′24″ W.long.;
 - (ii) July 16 through September 30: all waters of the inner bay;
 - (16) Balboa Bay
 - (A) all waters north of a line extending west from Reef Point;
- (B) all waters of Lefthand Bay west of a line from 55° 31'36" N.lat., 160° 42'54" W.long., to 55° 33'12" N.lat., 160° 42'06" W.long.;
- (17) Zachary Bay: all waters of the inner bay south and west of a line extending from the inner edge of the grass line of the sand spit to the west of the tip of the prominent point of land approximately 1½ nautical miles inside Quartz Point;
- (18) San Diego Bay: all waters of a lagoon at the head of the bay and within 500 yards outside the lagoon's entrance except that from July 19 through August 31 the closure includes all waters west of a line from the reef at 55° 33'08" N.lat., 160° 26'30" W.long., to the headland at 55° 34'02" N.lat., 160° 25'48" W.long.;
- (19) Dorenoi Bay: all waters north and west of a line from the tip of Renshaw Point to the opposite shore at 55° 38'30" N.lat., 160° 19' W.long.;
 - (20) Chichagof Bay: all waters of the lagoon and within 500 yards of the lagoon entrance;
 - (21) Orzinski Bay (Orzenoi): within 1,000 yards of any salmon stream;
- (22) Grub Gulch: all waters north and east of a line from 55° 48'18" N.lat., 159° 56'06" W.long. to 55° 49'00" N.lat., 159° 58'12" W.long.;
- (23) Stepovak Bay: from June 1 through July 28, all waters within 500 yards of any salmon stream or lagoon unless otherwise specified; from July 29 through September 30, all waters north of a line extending east from the tip of Dent Point to a point on the Kupreanof Peninsula at 55° 47′ N.lat., 159° 38'30″ W.long.;
 - (24) Bay Point: all waters of the lagoon and within 500 yards of the lagoon entrance;

- (25) Amak Island and adjacent Sea Lion Rocks: all waters within three nautical miles of these islands and elevations;
- (27) Applegate Cove-Norma Bay: all waters south of a line from a point at 55° 14'08" N.lat., 162° 53' W.long., to the southwest extremity of Norma Bay at 55° 10'50" N.lat., 163° 05'07" W.long., as buoyed and marked by the department; this boundary aligns with the Cold Bay VORTAL cone and the headland located approximately two nautical miles south of the radar domes near Grant Point.
 - (28) Ilnik Lagoon: all waters of Ilnik Lagoon and Lake west of 159° 30'12" W.long.;
 - (29) Herendeen Bay
- (A) from May 1 through July 20, all waters within 500 yards of any salmon stream unless otherwise specified;
- (B) after July 20, all waters south of the latitude of Bold Bluff Point (55° 45'15" N.lat.) and within 500 yards of all salmon streams north of 55° 45'15" N.lat.
- (30) Nelson Lagoon: all waters of the lagoon and river (called Caribou, Nelson, and Lagoon River) flowing into the upper (west) end of Nelson Lagoon, upstream of a line from 55° 57'20" N.lat., 161° 22'15" W.long. to 55° 57'45" N.lat., 161° 22'40" W.long.
- 5 AAC 09.360. SOUTHEASTERN DISTRICT SALMON MANAGEMENT PLAN. (a) This plan pertains to the management of the interception of Chignik River sockeye salmon caught in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections. Before July 11, only set gillnet gear may be used in these sections. For the purpose of this plan, local runs include only those salmon in the waters inside of a line from Renshaw Point to the mouth of Osterback Creek.
- (b) In years when a harvestable surplus for the first (Black Lake) and second (Chignik Lake) runs of Chignik River system sockeye salmon is expected to be less than 600,000, there will be no commercial salmon fishery allowed in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections, as described in 5 AAC 09.200(f), until a harvest of 300,000 sockeye salmon in the Chignik Area, as described in 5 AAC 15.100, is achieved. After July 8, after at least 300,000 sockeye salmon have been harvested in the Chignik Area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections will approach as near as possible 5.7 percent of the total Chignik sockeye salmon catch.
- (c) In years when a harvestable surplus beyond escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000, but the first run fails to develop as predicted and it is determined that a total sockeye salmon harvest in the Chignik Area of 600,000 or more may not be achieved, the commercial salmon fishery in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections will be curtailed in order to allow at least a minimum harvest in the Chignik Area of 300,000 sockeye salmon by July 9 if that number of fish are determined to be surplus

- to the escapement goals of the Chignik River system. After July 8 and after at least 300,000 sockeye salmon have been harvested in the Chignik Area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections will approach as near as possible 5.7 percent of the total Chignik sockeye salmon catch.
- (d) In years when a harvestable surplus beyond the escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000 and the department determines the runs are as strong as expected, the department shall manage the fishery so that the number of sockeye salmon taken in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections will approach as near as possible 5.7 percent of the total Chignik sockeye salmon catch.
- (e) The estimate of sockeye salmon destined for the Chignik River has been determined to be 80 percent of the sockeye salmon harvested along the mainland from the easternmost tip of McGinty Point to Suzy Creek and the East Stepovak Section. The remaining sockeye salmon taken in the mainland fishery have been determined to be destined for Orzinski Bay.
- (f) The total Chignik sockeye salmon catch constitutes those sockeye salmon caught within the Chignik Area, plus 80 percent of the sockeye salmon caught in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections, as described in 5 AAC 09.200(e) and (f), plus 80 percent of the sockeye salmon caught in the Cape Igvak Section of the Kodiak Area. The percentage of Chignik sockeye salmon may be permitted to fluctuate above or below 5.7 percent at any time before July 25.
- (g) This allocation method will be in effect through July 25. The first fishing period of the commercial salmon fishing season in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections will not occur before the first fishing period of the commercial salmon fishing season in the Chignik Area. After July 25, commercial salmon fishing in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections may be allowed on local stocks.
- (h) During the period from approximately June 26 to July 9, the strength of the second run of the Chignik River system sockeye salmon cannot be evaluated. In order to prevent overharvest of the second run, the department may disallow or severely restrict commercial salmon fishing in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections during this period.
- (i) The department shall announce commercial salmon fishing periods by emergency order. The department shall give at least one day's notice before the opening of a commercial salmon fishing period, unless it is an extension of a fishing period in progress.
- 5 AAC 09.365. SOUTH UNIMAK AND SHUMAGIN ISLANDS JUNE SALMON MANAGEMENT PLAN. (a) Mixed stocks of salmon bound for distant systems have historically been intercepted in significant numbers along the Alaska Peninsula. To ensure that none of these runs are overharvested, it is necessary to restrain their interception.

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(b) The Alaska Board of Fisheries has established sockeye guideline harvest levels on the Unimak district and Shumagin Islands section, as described in Sec. 200(c) and (f)(3) of this chapter, June interceptions fisheries, both of which are based on percentages of the latest projected Bristol Bay inshore sockeye harvest as published by the Department of Fish and Game. Consistent with the board's Policy Statement on Management of Mixed Stock Salmon Fisheries and traditional harvest patterns, the maximum percentage allowed for the South Unimak fishery is 6.8 percent and for the Shumagin Islands fishery, 1.5 percent. The forecasts for Bristol Bay are sometimes updated as more information becomes available, just prior to the South Unimak and Shumagin Islands season, and exact numbers of fish cannot be given before the opening of each fishery.

(c) Guideline harvest levels are established with the understanding that catches will be distributed proportionally over the June runs to avoid excessive impacts on any segment of the runs. In order to accomplish this, the following guidelines will be adhered to as much as practicable:

Weekly Guideline Harvest Levels of Sockeye Salmon (expressed as a percentage of the total allowable harvest)

Weekly Period	South Unimak	Shumagin Islands
June 1-4 & 5-11	5 %	9%
June 12-18	29%	28%
June 19-25	51%	41%
June 26-30	15%	22%
	100%	100%

There may be no more than 96 hours of fishing allowed during any seven day week and no more than 72 consecutive hours of fishing at any time. The fishery must be closed for at least 24 hours following any opening of 72 consecutive hours. It is the preference of the board that the timing of the open and closed fishing periods be set to reduce excessive impacts on any segment of the runs. It is also the preference of the board that no more than 48 consecutive hours of fishing be allowed unless circumstances such as weather or attainment of the weekly guideline harvest levels require up to 72 consecutive hours of fishing.

(d) Weekly fishing periods will be announced by field emergency order, and they will be adjusted to keep the harvest within the weekly guidelines. If catches fall below the guidelines for a given weekly period, those unharvested sockeye will not be added into a subsequent weekly period. If weekly guideline harvest levels are inadvertently exceeded during any given fishing period, the excess will be a portion of the total guideline harvest level. If, during the last weekly fishing period, the staff determines that no significant fishing occurred due to weather conditions, the staff may, it its discretion, permit fishing to continue after June 30.

(e) The South Unimak and Shumagin Island June salmon fishery targets on the more abundant and valuable sockeye salmon. The board recognizes that the harvest of other salmon species is incidental to the sockeye harvest. The board has determined that this incidental harvest is unavoidable and cannot be regulated with the present level of knowledge regarding this fishery. The board will not support any significant increase

in the interception rate of chum salmon taken in the South Unimak and Shumagin Islands June salmon fishery. These stocks are probably fully utilized in existing terminal fisheries of long standing. This determination is consistent with the philosophy contained in the board's Policy Statement on Management of Mixed Stock Salmon Fisheries. The board recognizes that the conservation and allocation of non-targeted salmon stocks may be a concern during some years, but does not have the data to ensure specific corrective action at this time (Dec. 1982).

ARTICLE 4.—BOTTOMFISH FISHERY

5 AAC 09.410. FISHING SEASON. There is no closed season on bottomfish.

ARTICLE 5.—SMELT FISHERY

5 AAC 09.510. FISHING SEASON. There is no closed season on smelt.

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ALEUTIAN ISLANDS AREA

CHAPTER 12.—ALEUTIAN ISLANDS AREA ARTICLE 1.—DESCRIPTION OF AREA

5 AAC 12.001. APPLICATION OF THIS CHAPTER. Requirements set forth in this chapter apply to commercial fishing only, unless otherwise specified. Subsistence fishing regulations affecting commercial fishing vessels or affecting any other commercial fishing activity are set forth in the subsistence fishing regulations in chs. 1 and 2 of this title.

5 AAC 12,100. DESCRIPTION OF AREA. The Aleutian Islands Area includes all waters of Alaska in the Aleutian Islands west of, and including, Unimak Pass.

ARTICLE 2.—FISHING DISTRICTS AND SECTIONS

5 AAC 12.200. DESCRIPTION OF DISTRICTS AND SECTIONS. (a) Akutan District: all waters between Scotch Cap Light and Cape Sarichef Light and extending west to and including Akutan Pass. South of Scotch Cap Light, the eastern boundary of the district is the longitude of Scotch Cap Light.

- (b) Unalaska District: all waters west of Akutan Pass to and including Umnak Pass;
- (1) Beaver Inlet Section: all waters between Cape Sedanka and Cape Kalekta and including Unalga Island;
- (2) Unalaska Bay Section: all waters between Cape Kalekta and Cape Kovrizhka;
- (3) Makushin Bay Section: all waters between Cape Kovrizhka and Spray Cape;
- (4) Kashega Bay Section: all waters between Spray Cape and Konets Head;
- (5) Southern Section: all waters between Konets Head and Cape Sedanka.
- (c) Umnak District: all waters west of Umnak Pass to and including Atka Pass.
- (d) Adak District: all waters west of Atka Pass to the terminus of the Aleutian Islands.

ARTICLE 3.—SALMON FISHERY

5 AAC 12.310. FISHING SEASONS. Salmon may be taken only from July 10 through September 30, except that in the Kashega Bay Section, salmon may be taken only from June 1 through September 30.

- 5 AAC 12.320. WEEKLY FISHING PERIODS. Salmon may be taken only as follows:
- (1) June 1 through July 18, from 6:00 a.m. Monday until 6:00 p.m. Friday;
- (2) from July 19 through September 30, salmon may be taken during open season only during fishing periods established by emergency order;

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5 AAC 12.330. GEAR. Salmon may be taken by purse seines, hand purse seines and beach seines.

5 AAC 12.332, SEINE SPECIFICATIONS AND OPERATION. (a) Purse seines and hand purse seines may not be less than 100 fathoms nor more than 250 fathoms in length.

(b) Beach seines may not be less than 100 fathoms in length and 3 fathoms in depth, nor more than 250 fathoms in length and 12 fathoms in depth.

(c) No lead may be less than 25 fathoms nor more than 150 fathoms in length.

5 AAC 12.350. CLOSED WATERS. Inner Iliulik Harbor and Margrets Bay are closed to the taking of salmon.

ARTICLE 4.—BOTTOMFISH FISHERY.

5 AAC 12.410. FISHING SEASON. There is no closed season on bottomfish.

5 AAC 12.430. GEAR. Bottomfish may be taken by sunken gill nets under the authority of a permit issued by the commissioner or a local representative of the department. The permit may specify open areas, fishing periods, gear specifications and operating specifications, and may require completion by the vessel operator of a log book provided by the department.

ARTICLE 10. STATISTICAL AREA M; ALASKA PEN.—ALEUTIAN I.

5 AAC 27.600. DESCRIPTION OF AREA. Statistical Area M includes all waters bound on the east by a line extending southeast (135°) from the southernmost tip of Kupreanof Point, on the west by the International Date Line, and on the north by a line extending west from the westernmost tip of Cape Menshikof.

5AAC 27.605. DESCRIPTION OF DISTRICTS AND SECTIONS. (a) Southeastern District: includes all waters on the south side of the Alaska Peninsula between Point Aliaksin on Cape Aliaksin and Kupreanof Point, including all of the Shumagin Islands.

- (b) South Central District: all waters on the south side of the Alaska Peninsula between the tip of Arch Point and the tip of Point Aliaksin, including Ukolnoi and Wosnesenski Islands.
- (c) Southwestern District: all waters on the south side of the Alaska Peninsula between Cape Pankof Light and Arch Point, including Inner Iliasik, Outer Iliasik, Goloi, Dolgoi, Poperechnoi, and Deer Islands.
- (d) Unimak District: all waters on the south side of Unimak Island between Scotch Cap and Cape Pankof Light, including the Sanak Islands.
- (e) Akutan District: all waters extending west of Unimak Island to and including Akutan Pass.
- (f) Unalaska District: all waters west of Akutan Pass to and including Umnak Pass.
- (g) Umnak District: all waters west of Umnak Pass to and including Atka Pass.
- (h) Adak District: all waters west of Atka Pass to the terminus of the Aleutian Islands.
- (i) Amak District: all Bering Sea waters south and west of Cape Lieskof (55° 47' N. lat., 162° 04' W. long.) to the longitude of Cape Sarichef Light, including all waters of Bechevin Bay and Isanotski Strait north of a line from the False Pass Cannery dock to the tip of Nichols Point.
- (j) Port Moller District; all Bering Sea waters between the latitude of Cape Lieskof and the latitude of Cape Seniavin (56° 24' N. lat);
- (1) Western Section: all waters of the Port Moller District west of the longitude of Wolf Point on Walrus Island, excluding the waters of Herendeen Bay and Outer Port Moller Bay sections;
- (2) Herendeen Bay Section: all waters of Herendeen Bay bounded by a line from Point Divide (55° 53'10' N. lat., 160° 47' W. long.) to Doe Point on Deer Island and from Fawn Point on Deer Island to Point Edward on Cape Rozhnof;
- (3) Inner Port Moller Bay Section: all waters of Port Moller Bay south and east of a line from Point Divide (55° 53′10″ N. lat., 160° 47′ W. long.) to Harbor Point (55° 55′ N. lat., 160° 34′30″ W. long.);

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- (4) Outer Port Moller Bay Section: all waters enclosed by a line from Point Divide (55° 53'10" N. lat., 160° 47' W. long.) to Harbor Point (55° 55' N. lat., 160° 34'30" W. long.) from Point Divide to Doe Point on Deer Island and from Fawn Point on Deer Island to Point Edward on Rozhnof Island to Wolf Point on Walrus Island to Entrance Point (55° 58'40" N. lat., 160° 34'40" W. long.);
- (5) Bear River Section: all Bering Sea waters between the longitudes of Wolf Point and Cape Seniavin Light, excluding the waters of the Herendeen Bay, Outer Port Moller Bay, and Inner Port Moller Bay sections.
- (k) Port Heiden District: all waters between the latitude of Cape Seniavin (56° 24' N. lat.) and the latitude of Cape Menshikof (57° 31'20° N. lat.).
- 5 AAC 27.610. FISHING SEASONS AND PERIODS. (a) In the Southwestern, South Central, and Southeastern Districts, herring may be taken from April 15 through July 15 (sac roe) and from July 16 through February 28 (food and bait season).
- (b) In the Unimak, Akutan, Unalaska, Umnak, and Adak Districts, herring may be taken from April 15 through February 28.
- (c) In the Amak, Port Moller, and Port Heiden Districts, herring may be taken from April 15 through July 15 (sac roe season) and from August 15 through February 28 (food and bait season).
- (d) Herring may be taken only during periods established by emergency order.
- 5 AAC 27.630. GEAR. Herring may be taken only by purse seines and gill nets, except as follows:
- (1) in the Amak District, herring may be taken with trawls only from August 15 through February 28.
- (2) in waters of the Bering Sea north of 55°47'N.lat., herring may be taken by trawls only during seasons established by emergency order.
- 5 AAC 27.631. GILL NET SPECIFICATIONS AND OPERATIONS. (a) During the herring sac roe season, the aggregate length of herring gill nets in use by a herring CFEC permit holder may not exceed 150 fathoms.
- (b) The interim-use or entry permit holder must be physically present while the gill net is being fished.
- (c) Each drift gill net in operation must have a buoy at one end and the opposite end must be attached to the fishing vessel. Each set gill net in operation must be anchored and buoyed at both ends. Each buoy must be plainly and legibly marked with the permanent vessel license plate number (ADF&G number) of the vessel operating the gear. The buoy may bear only a single number and this number must be that of the vessel used in operating the gear. The numbers must be painted on the top one-third of the buoy in numerals at least four inches in height, one-half inch in width and in a color

contrasting to that of the buoy. The buoy markings must be visible on the buoy above the water surface.

- 5 AAC 27.632. SEINE SPECIFICATIONS AND OPERATIONS. During the herring sac roe season, no purse seine may be more than 1,000 meshes in depth and more than 100 fathoms in length. During the herring food and bait season, no purse seine may be more than 250 fathoms in length.
- 5 AAC 27.650. WATERS CLOSED TO HERRING FISHING. (a) Herring may not be taken from June 25 through September 30 in any waters closed to salmon fishing.
- 5 AAC 27.660, HARVEST STRATEGY. (a) The department shall manage the Unimak, Akutan, and Unalaska Districts and that portion of the Umnak District east of Samalga Pass for a herring harvest not to exceed 3,200 m.t.
- (b) The department shall manage the Southwestern, South Central, and Southeastern Districts so that 75 percent of the estimated guideline harvest level of 1,200 tons is taken during the sac roe season and 25 percent is taken during the food and bait season. If the 75 percent is not taken during the sac roe season, then the amount of herring not taken may be allowed to be taken during the food and bait season. The department shall adjust the guideline harvest level based on herring biomass assessments conducted during the sac roe season.
- 5 AAC 27.662. BUYER AND TENDER REPORTING REQUIREMENTS. In addition to the requirements of 5 AAC 39.130(f) each tender operator and each buyer or his agents shall report in person to and register with a local representative of the department upon arrival in the statistical area before commencing operations and before changing location of the operation. Each buyer shall:
- (1) identify all vessels to be employed in transporting or processing herring and shall register such vessels with a local representative of the department located in the statistical area before transporting or processing of herring;
- (2) make daily reports of all herring purchased from fishermen, and other processing records as specified by a local representative of the department; and
- (3) submit fish tickets before departure from the area and no later than 10 days after termination of buying operations in the area, or as otherwise specified by a local representative of the department.
- 5 AAC 27.665. HERRING SPAWN ON KELP MANAGEMENT PLAN. (a) Herring and herring spawn on kelp in pounds may be taken in the Shumagin Islands only during seasons established by emergency order.
- (b) The guideline harvest level for the taking of herring spawn on kelp in pounds is 10 tons of herring spawn on kelp. The commissioner or his authorized designee shall divide the guideline harvest level equally among those persons fishing permits issued under (c) of this section.

- (c) Herring pound operators shall obtain, before March I of each calendar year, a harvest permit issued by the commissioner or his authorized designee. The following permit requirements must be followed:
 - (1) a harvest permit must be obtained by each fisherman before commercial fishing;
 - (2) a harvest permit may not be transferred to another person;
- (3) a harvest permit must be in the possession of the permittee and be readily available for inspection while the permittee is in possession of herring spawn on kelp;
- (4) each harvest permit must specify the following:
- (A) the location where pounds may be operated;
- (B) the size of, identification requirements for, and method of operation of the pounds;
- (C) the location and methods for taking, retention, and release of herring and kelp to be used in a pound for the production of herring spawn on kelp;
 - (D) the harvest reporting requirements for pound operators; and
- (E) other guidelines determined by the commissioner to be necessary for the conservation and management of herring and kelp, and the public health, safety, and general welfare.
- (d) This section is repealed effective January 1, 1987.

ALASKA PENINSULA AREA

CHAPTER 09.—ALASKA PENINSULA AREA ARTICLE 1. DESCRIPTION OF AREA.

5 AAC 09.001. APPLICATION OF THIS CHAPTER. Requirements set forth in this chapter apply to commercial fishing only, unless otherwise specified. Subsistence fishing regulations affecting commercial fishing vessels or affecting any other commercial fishing activity are set forth in the subsistence fishing regulations in chs. 1 and 2 of this title.

5 AAC 09.100. DESCRIPTION OF AREA. The Alaska Peninsula Area includes all waters of Alaska from Cape Menshikof to Cape Sarichef Light and from Scotch Cap Light to Kupreanof Point.

ARTICLE 2. FISHING DISTRICTS AND SECTIONS.

- 5 AAC 09.200. FISHING DISTRICTS AND SECTIONS. (a) The Northern District includes all waters on the north side of the Alaska Peninsula between the westernmost tip of Cape Menshikof and the southernmost tip of Moffet Point:
- (1) Cinder River Section: all waters between Cape Menshikof and Strogonof Point, exclusive of waters comprising the Port Heiden section;
- (2) Port Heiden Section: all waters of Port Heiden Bay south and east of a line from Strogonof Point at 56° 53′ 16″ N.lat., 158° 50′ 36″ W.long., to the Mainland shore of the northeast entrance to the bay at 56° 56′ 31″ N.lat., 158° 40′ 44″ W.long.;
- (3) Hnik Section: all waters between the longitude of Strogonof Point (158° 51' W.long.) and the longitude of Three Hills (159° 50' W.long.):
- (4) Three Hills Section: all waters between the longitude of Three Hills (159° 50' W.long.) and the longitude of Cape Seniavin Light (160° 06' W.long.);
- (5) Bear River Section: all waters between the longitude of Cape Seniavin Light (160° 06° W.long, and the longitude of Wolf Point (160° 48′ 30" W.long.), excluding the waters of the Herendeen-Moller Bay Section;
- (6) Herendeen-Moller Bay Section: all waters south of a line extending from Entrance Point to Wolf Point to Point Edward on Cape Rozhnof;
- (7) Nelson Lagoon Section: all waters of Nelson Lagoon inside the bars and inside a line extending from Lagoon Point to Wolf Point to Point Edward on Cape Rozhnof;
- (8) Caribou Flats Section: all waters between Wolf Point and a point at 55° 53′ 40″ N lat., 162° 49° W.long., approximately 22 nautical miles west of Nelson Lagoon Village and exclusive of the waters comprising the Nelson Lagoon section;
- (9) Black Hills Section: all waters between 55° 53' 40" N.lat., 161° 49 'W.long., and Motfet Point.

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- (b) The Northwestern District: all waters on the north (Bering Sea) side of the Alaska Peninsula between Mosfet Point and Cape Sariches Light on Unimak Island, including Bechevin Bay and the waters of Isanotski Strait north of a line from the False Pass cannery dock to Nichols Point.
 - (1) Izembek-Moffet Bay Section: all waters between Moffet Point and Cape Galazenap;
- (2) Bechevin Bay Section: all waters between Cape Galazenap and Chunak Point, including Bechevin Bay and the waters of Isanotski Strait north of a line from the False Pass cannery dock to Nichols Point:
- (3) Urilia Bay Section: all waters between Chunak Point and the northernmost tip of Cape Mordvinof, including Swanson, Peterson, and Christianson Lagoons;
- (4) Dublin Bay Section: all waters between the northernmost tip of Cape Mordvinof and Cape Sarichef Light.
- (c) The Unimak District includes all waters on the south side of Unimak Island between Scotch Cap and Cape Pankof Light and including the Sanak islands.
- (d) The Southwestern District includes all waters on the south side of the Alaska Peninsula between Cape Pankof Light and Arch Point, including Inner Iliask, Outer Iliask, Goloi, Dolgoi, Poperechnoi and Deer Islands:
- (1) Ikatan Bay Section: all waters west of a line from Cape Pankof Light to Kenmore Head and including the waters of Isanotski Strait south of a line from the False Pass cannery dock to Nichols Point;
- (2) Morzhovoi Bay Section: all waters north of a line from Kenmore Head to Cape Tachilni;
- (3) Thin Point Section: all waters between Cape Tachilni and Thin Point:
- (4) Cold Bay Section: all waters north of a line from Thin Point to Vodapoini Point;
- (5) Deer Island Section: all waters within one nautical mile of Deer Island;
- (6) Belkofski Bay Section: all waters between Vodapoini Point and Moss Cape, including Inner and Outer Iliasik Islands but excluding the waters of the Deer Island section;
- (7) Volcano Bay Section: all waters between Moss Cape and Arch Point including Goloi, Dolgoi and Poperechnoi Islands;
 - (8) General Section: all other waters of the Southwestern district.
- (e) The South Central District includes all waters on the south side of the Alaska Peninsula between the tip of Arch Point and the tip of Point Aliaksin, including Ukolnoi and Wosnesenski islands:

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- (1) Pavlof Bay Section: all waters of Pavlof Bay, excluding the Canoe Bay section, and all other waters of the district west of the longitude of Cape Tolstoi (161° 30' W.long.);
- (2) Canoe Bay Section: all waters of Canoe Bay enclosed by a line from a point at 55° 35′ 37° N.lat., 161° 21′ 33″ W.long. to a point at 55° 35′ 41″ N.lat., 161° 21′ 40″ W.long.;
- (3) Mino Creek-Little Coal Bay Section: all waters of the district, excluding those of the Paylof Bay and Canoe Bay sections, between the longitude of McGinty Point (160° 59' W.long.) and the longitude of Cape Tolstoi (161° 30' W.long.);
- (4) Beaver Bay Section: all waters of the district east of the longitude of McGinty Point (160° 59' W.long.).
- (f) The Southeastern District includes all waters on the south side of the Alaska Peninsula between Point Aliaksin on Cape Aliaksin and Kupreanof Point, including all of the Shumagin Islands:
- (1) Balboa Bay Section: all waters between Point Aliaksin and 160° 30' W.long. at Swedania Point:
- (3) Shumagin Islands Section: all waters of the Shumagin Islands;
- (4) West Stepovak Section: all waters within three nautical miles of the mainland and Guillemot Island between 160° 30 'W.long., at Swedania Point and 159° 52' W.long. at Dent Point:
- (5) East Stepovak Section: all waters within three nautical miles of the mainland between 159° 52' W.long, at Dent Point and 159° 35' 30" W.long, at Kupreanof Point:
 - (6) General Section: all other waters of the Southeastern district.

ARTICLE 3.—SALMON FISHERY

- 5 AAC 09.301. SEAWARD BOUNDARY OF DISTRICTS. For the purpose of managing the historical salmon net fishery in the vicinity of False Pass and Unimak Bight, the outer boundary of the Southwestern and Unimak Districts is a line three miles seaward from a line commencing at 54° 26′ 45″ N.lat., 162° 53′ W.long., near the western end of Sanak Island to Cape Lutke on Unimak Island.
- 5 AAC 09.310. FISHING SEASONS. (a) In the Northern District, salmon may be taken as follows:
 - (1) Cinder River Section
- (A) from May 1 through September 30 within the lagoon into which Cinder River drains (locally known as False Ugashik or Shagong);

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- (B) from August 1 through September 30 throughout this section;
- (2) Port Heiden Section: from May 1 through September 30;
- (3) Ilnik Section
- (A) from May 1 through September 30 within Ilnik Lagoon and all waters inside the Seal Islands:
 - (B) from July 5 through September 30 throughout this section;
 - (4) Three Hills Section: from June 25 through September 30;
 - (5) Bear River Section: from May 1 through September 30;
- (6) Herendeen-Moller Bay Section: from May 1 through July 20 with the exception that within the bight enclosed by a line from Entrance Point to Harbor Point salmon may be taken from May 1 through September 30;
 - (7) Nelson Lagoon Section: from May 1 through September 30;
 - (8) Caribou Flats Section: from May 1 through June 20;
 - (9) Black Hills Section: from May 1 through September 30.
- (b) In the Northwestern District, salmon may be taken only from June 1 through August 10, except that in the Dublin Bay section, salmon may be taken only from July 10 through August 10. After September 1, the season will be opened by emergency order.
- (c) In the Unimak District, salmon may be taken only from June 1 through September 30.
- (d) In the Southwestern District, salmon may be taken only from June 1 through September 30.
- (e) In the South Central District, salmon may be taken only from June 1 through September 30.
- (f) In the Southeastern District, salmon may be taken only from June 1 through September 30.
- 5 AAC 09.320. FISHING PERIODS. (a) In the Northern District, salmon may be taken from 6:00 a.m. Monday until 6:00 p.m. Thursday, except as follows:
- (1) in the Black Hills and Caribou Flats Sections, salmon may be taken from 6:00 a.m. Monday until 6:00 p.m. Friday;

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- (2) in the Nelson Lagoon Section, salmon may be taken from 6:00 a.m. Monday until 12:00 midnight Thursday.
- (b) Salmon may be taken only during the open season in the Northwestern District in the
- (1) Izembek-Moffet Bay Section: from 6:00 a.m. Monday until 6:00 p.m. Thursday;
- (2) Bechevin Bay Section: only during fishing periods established by emergency order;
- (3) Urilia Bay Section: from 6:00 a.m. Monday until 6:00 p.m. Thursday.
- (4) Dublin Bay Section, from 6:00 a.m. Monday until 6:00 p.m. Thursday.
- (c) Salmon may be taken during the open season in the Unimak District during fishing periods established by emergency order.
- (d) Salmon may be taken only during the open season in the Southwestern District only during fishing periods established by emergency order.
- (e) Salmon may be taken only during the open season in the South Central District.
- (1) In the Paylof Bay, Canoe Bay, and Mino Creek-Little Coal Bay Sections only during fishing periods established by emergency order;
- (2) in the Beaver Bay Section from 6:00 a.m. Monday until 9:00 p.m. Friday from June 1 through July 10; after July 10 salmon may be taken only during fishing periods established by emergency order;
- (f) salmon may be taken only during the open season in the Southeastern District;
- (1) salmon may be taken only during fishing periods established by emergency order;
- (3) in the Balboa Bay, West Stepovak, East Stepovak and General Sections from 6:00 a.m. Monday until 9:00 p.m. Friday from June 1 through July 10; after July 10 salmon may be taken during fishing periods established by emergency order.
- 5 AAC 09.330. GEAR. (a) In the Northern District salmon may be taken:
 - (1) in the Cinder River Section: with drift gill nets or set gill nets only;
 - (2) in the Port Heiden Section: with drift gill nets or set gill nets only;
 - (3) in the Ilnik Section: with drift gill nets or set gill nets only;
 - (4) in the Three Hills Section: with drift gill nets only;
- (5) in the Bear River Section: with drift gill nets, purse seines and hand purse seines;
- (6) in the Herendeen-Moller Bay Section: with drift gill nets, set gill nets, purse seines and hand purse seines;

- (7) in the Nelson Lagoon Section: with drift gill nets or set gill nets;
- (8) in the Caribou Flats Section: with drift gill nets or set gill nets;
- (9) in the Black Hills Section; with drift gill nets or set gill nets only;
- (b) in the Northwestern District, salmon may be taken with drift gill nets, set gill nets, purse seines and hand purse seines.
- (c) In the Unimak District, salmon may be taken with drift gill nets, set gill nets, purse seines and hand purse seines.
- (d) In the Southwestern District, salmon may be taken with purse seines, hand purse seines and set gill nets except that
- (1) salmon may also be taken with drift gill nets west of a line from Kenmore Head to Hague Rocks to the easternmost tip of the Sanak Islands;
- (e) In the South Central District, salmon may be taken with set gill nets, purse seines and hand purse seines, except that
 - (2) within Canoe Bay, salmon may be taken only with purse seines and hand purse seines;
- (3) in the Beaver Bay Section, salmon may be taken only with set gill nets from June 1 through July 10.
- (f) In the Southeastern District, salmon may be taken only with set gill nets, purse seines and hand purse seines except that
- (1) salmon may be taken only with purse seines and hand purse seines in the area between Popof Head and Dark Cliffs (Popof Island) from June 1 through August 31;
- (3) salmon may be taken only with set gill nets from June 1 through July 10 in the Balboa Bay, West Stepovak, East Stepovak and General Sections.
- (4) salmon may be taken by set gill net during periods when the seine fishery is closed by emergency order due to presence of immature salmon.
- 5 AAC 09.331. GILL NET SPECIFICATIONS AND OPERATION. (a) The size and operation of drift gill nets is as follows:
- (1) the aggregate length of drift gill nets on a salmon fishing boat or in use by such boat shall be no more than 200 fathoms in length;
- (2) the mesh size of drift gill nets shall not be less than five and one-quarter inches, except that in the Caribou Flats Section the mesh size of drift gill nets shall not be less than eight and one-half inches;

EMERGENCY ORDER NO. 4-F-M-01-87

Issued at Kodiak, April 3, 1987

EXPLANATION:

This emergency order leaves the East Stepovak and West Stepovak Sections (as described in the 1987 commercial salmon regulations) closed to commercial herring fishing through March 31, 1988. For the balance of the Alaska Peninsula-Aleutian Islands area, this emergency order establishes 24 hours per day 7 days per week fishing periods during the open season.

JUSTIFICATION:

The herring biomass estimated in Stepovak Bay has been critically low during recent years. Therefore Stepovak Bay should remain closed until a herring biomass large enough to justify a harvest is observed.

Fishing time is needed to allow harvests in the balance of the Alaska Peninsula-Aleutian Islands Area. Effort is anticipated to be light in those areas where the Department is not in a position to closely monitor the situation(s). Therefore, until conditions indicate more conservative measures are needed, seven fishing days per week during the open season can be allowed without jeopardizing the resource.

EMERGENCY ORDER NO. 4-F-M-02-87

Issued at Kodiak, April 3, 1987

EXPLANATION:

This emergency order clarifies that the commercial herring seasons in the Unimak, Akutan, Unalaska, Umnak, and Adak Districts are as follows:

Sac roe season April 15 through July 15 Food and bait season July 16 through February 28

JUSTIFICATION:

Clarification is needed as to when gear limits allowed during the food and bait season can be used in the Aleutian Islands. The seasons were listed as in this emergency order in regulation books prior to 1985. However, the dates of the two seasons have been left out of the 1985, 1986 and 1987 regulations books (by error, not Board of Fisheries action). This emergency order spells out the actual dates of the sac roe and food and bait seasons as they are supposed to appear in the regulation book.

EMERGENCY ORDER NO. 4-F-M-03-87

Issued at Kodiak, April 6, 1987

EXPLANATION:

This emergency order allows fishing only during fishing periods created by subsequent emergency orders in the Beaver Bay, Balboa Bay, West Stepovak, East Stepovak, and General (Southeastern District) Sections.

The closed waters of Iliulik Harbor are more precisely described than what is printed in the 1987 commercial finfish regulation book.

JUSTIFICATION:

During November 1984, the Alaska Board of Fisheries adopted a new management plan for Beaver, Balboa, and Stepovak Bays which is incompatible with set weekly fishing periods printed in the commercial finfish regulation book. Fishing periods under the new management plan must be implemented by emergency order.

The description of the closed waters at Iliulik Harbor and Margrets Bay was amended by the Board of Fisheries to read as they are in this emergency order. Unfortunately, this description was not printed correctly in the regulation book.

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EMERGENCY ORDER NO. 4-F-M-04-87

Issued at Kodiak, April 10, 1987

EXPLANATION:

This emergency order allows commercial salmon fishing from 6:00 A.M. until 10:00 P.M. during June 8 in the Shumagin Islands Section, Bechevin Bay Section, Southwestern District, and Unimak District.

JUSTIFICATION:

The Alaska Board of Fisheries has established sockeye guideline harvest levels of 1.5% for the Shumagin Islands and 6.8% for the South Unimak June interception fisheries based on the Department of Fish and Game's latest published forecast for the Bristol Bay inshore salmon harvest. Based on the 1987 Bristol Bay sockeye forecast, the guideline harvest levels are 140,000 and 635,000 for the Shumagin Islands and South Unimak fisheries respectively. The Board of Fisheries also established time period guideline harvest levels, each a percentage of the season guideline harvest level for each fishery. The June 1 - 11 guideline harvest levels are 13,000 and 32,000 for the Shumagins and South Unimak respectively.

It is anticipated that the June 1-11 guideline harvest levels can easily be taken during the latter portion of the June 1-11 period due to: (1) the smallest guideline harvest levels since 1978. (2) An anticipated high level of gear compared to 1978 and preceding seasons.

EMERGENCY ORDER NO. 4-F-M-05-87

Issued at Cold Bay, May 11, 1987

EXPLANATION:

This emergency order closes the commercial herring fishing in Herendeen Bay, all waters around Deer Island (Port Moller), and that portion of Port Moller Bay located south and west of a line from the northern tip of Port Moller Hot Springs Peninsula to Point Edward.

JUSTIFICATION:

The Peninsula-Aleutians 1987 herring sac-roe fishery management plan states that the Herendeen Bay and Deer Island guideline harvest levels are 150 and 25 short tons respectively. The estimated catch from the vicinity of Herendeen Bay and Deer Island is 175 tons. Therefore an immediate closure is needed to prevent overexploitation of the stocks.

EMERGENCY ORDER NO. 4-F-M-06-87

Issued at Cold Bay, May 19, 1987

EXPLANATION:

This emergency order closes that portion of Port Moller Bay located south of the latitude of Port Moller Hot Springs to commercial herring fishing effective 6:00 P.M. May 19, 1987 through April 14, 1988.

JUSTIFICATION:

The fleet is presently catching small schools of herring at the head of Port Moller Bay. Approximately 70 tons have been taken today, bringing the season total for this location to 130 tons. If allowed to continue, the resource will be overexploited due to intensive effort. A closure is needed at this time to prevent overexploitation of herring stocks at the head of Port Moller Bay.

EMERGENCY ORDER NO. 4-F-M-07-87

Issued at Cold Bay, June 5, 1987

EXPLANATION:

This emergency order reduces the weekly fishing period in the Urilia Bay section by 48 hours each week. The weekly fishing period closure time is changed to 6:00 P.M. Tuesday from 6:00 P.M. Thursday.

JUSTIFICATION:

Fishing effort has greatly increased in the Urilia Bay Section from 3-4 boats fishing at one time prior to 1984 to 12-15 units of gear during 1986. Indications are that the amount of gear during 1987 will be as high or higher than

experienced in 1986. The resource can only withstand heavy pressure when the runs are very strong. The Urilia Bay catch during the first week was less than 1,000 sockeye compared to 4,700 sockeye in 1986. Indications are that the run is not strong. The Swanson Lagoon runs are not anticipated to be strong and a shorter fishing period at Urilia Bay will create more effort at Swanson Lagoon which is located at the east end of the Urilia Bay Section. Therefore at least until adequate escapements are assured, fishing periods should be significantly reduced for the entire Urilia Bay Section.

EMERGENCY ORDER NO. 4-F-M-08-87

Issued at Cold Bay, June 9, 1987

EXPLANATION:

This emergency order extends the present commercial salmon fishing period in the Urilia Bay Section for 12 hours until 6:00 A.M. Wednesday June 10.

A 6:00 A.M. until 10:00 P.M. commercial salmon fishing period during June 10 is established for the South Unimak and Shumagin Islands June fishery.

JUSTIFICATION:

The weekly fishing periods in the Urilia Bay Section were reduced from four days per week to two days with the periods ending 6:00 P.M. Tuesday, by emergency order 4-F-M-07-87. Fishermen have not been able to fish this week due to high winds followed by unfavorable tide conditions. A 12 hour extension will give the fishermen a chance to test the strength of the run and obtain a harvest.

Due to a lack of price agreement, there has been no reported catches in the Shumagins and only light effort at South Unimak. The June 1-11 sockeye guideline harvest levels are 13,000 and 32,000 fish for the Shumagins and South Unimak respectively. The South Unimak sockeye catch is only 4,300 fish. More fishing time is needed for the fishermen to catch their allocation.

EMERGENCY ORDER NO. 4-F-M-09-87

Issued at Cold Bay, June 10, 1987

EXPLANATION:

This emergency order allows a 6:00 A.M. until 10:00 P.M. commercial salmon fishery during June 12 in the Beaver Bay, Balboa Bay, West Stepovak and East Stepovak Sections.

JUSTIFICATION:

The Chignik sockeye run appears strong and a commercial salmon fishing period has been announced for the Chignik Area. Based on the early Chignik forecast

and the size of the run to date, it is anticipated that the Chignik Area sockeye catch during June will go well over 300,000 sockeye. The fishermen in Stepovak, Balboa and Beaver Bays are allocated 6.2% of the total Chignik destined sockeye catch as described in 5 AAC 09.360 (f). Fishing time is needed to give the fishermen an opportunity to harvest their allocation.

EMERGENCY ORDER NO. 4-F-M-10-87

Issued at Cold Bay, June 10, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time for 24 hours until 10:00 P.M. Thursday June 11 in the South Unimak fishery.

JUSTIFICATION:

The June 1-11 sockeye guideline harvest level for the South Unimak fishery is 32,000. Due to extremely low catch rates, it is anticipated that roughly half of the allocation will be taken by 10:00 P.M. June 10. A 24 hour extension of fishing time is needed for the fleet to catch its allocation.

EMERGENCY ORDER NO. 4-F-M-11-87

Issued at Cold Bay, June 12, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time in the Beaver Bay-Balboa-Stepovak (Southeast District Mainland) fishery until 10:00 P.M. June 14.

A 6:00 A.M. until 10:00 P.M. fishing period during June 14 is established for the South Unimak and Shumagin Island fisheries.

JUSTIFICATION:

Fishing time is needed to enable fishermen in the South Unimak and Shumagin Island fisheries to catch their respective June 12-18 sockeye allocations of 184,000 and 39,000 fish. Due to a maximum of 96 allowable hours in a seven day period, indications of a low sockeye abundance (with slightly higher numbers of chums) available at the present time, and the presence of high winds makes delaying the first June 12-18 fishing period until June 14 desirable.

Beaver Bay-Balboa-Stepovak fishermen are presently not fishing due to a price dispute and high winds. Chignik catches appear very strong. More fishing time is needed for fishermen in Beaver, Balboa, and Stepovak Bays to catch their allocation of Chignik destined sockeye.

EMERGENCY ORDER NO. 4-F-M-12-87

Issued at Cold Bay, June 13, 1987

EXPLANATION:

This emergency order closes Pavlof and Canoe Bays to commercial herring fishing effective June 13, 1987 through April 14, 1988.

JUSTIFICATION:

The 1987 Alaska Peninsula-Aleutian herring sac-roe management plan states that the sac-roe season guideline harvest levels are 75 short tons for each Pavlof and Canoe Bays. A herring fishery is presently taking place and it is anticipated that the catches are approaching the total annual guideline harvest level. The fishery should be closed at this time to prevent overexploitation of the resource.

EMERGENCY ORDER NO. 4-F-M-13-87

Issued at Cold Bay, June 14, 1987

EXPLANATION:

This emergency order closes the commercial salmon fishing season during June 17-28 in the Port Heiden and Cinder River Sections.

The present fishing period in the South Unimak fishery is extended an additional 24 hours until 10:00 P.M. June 15.

JUSTIFICATION: -

Recent surveys indicate that very king salmon are escaping into the Meshik and Cinder Rivers, although catches indicate a moderately strong run. A lengthy closed period is needed to assure a healthy escapement.

The sockeye catches at South Unimak are reported to be very weak. More fishing time is necessary for the fleet to catch its June 12-18 allocation of 184,000 sockeye.

EMERGENCY ORDER NO. 4-F-M-14-87

Issued at Cold Bay, June 15, 1987

EXPLANATION:

This emergency order establishes a 6:00 A.M. until 10:00 P.M. commercial salmon fishing period during June 17 in the South Unimak fishery.

JUSTIFICATION:

The South Unimak catch is estimated to be well below the June 12-18 guideline harvest level of 184,000. More fishing time is needed to allow the fleet an opportunity to harvest its allocation.

EMERGENCY ORDER NO. 4-F-M-15-87

Issued at Cold Bay, June 17, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time 18 hours until 4:00 P.M. June 18 in the South Unimak fishery.

JUSTIFICATION:

Before this fishing period began, there was approximately 90,000 sockeye left to be taken on the June 12-18 South Unimak guideline harvest level. There are practically no catch reports available due to the fishermen intending to fish up to the scheduled 10:00 P.M. closure. The few reports in, indicate poor catches and conversations with fishermen via radio indicate poor to mediocre catches. The total catch figures will not be available until 10-12:00 A.M. during the morning of June 18. A 16 hour extension will likely enable fishermen to catch their allocation in an orderly manner. If it is estimated that the catch will go under the June 12-18 guideline by 4:00 P.M. June 18, the fishery can be extended for the remainder of the day by subsequent emergency order.

EMERGENCY ORDER NO. 4-F-M-16-87

Issued at Cold Bay, June 18, 1987

EXPLANATION:

This emergency order establishes a 6:00 A.M. until 10:00 P.M. commercial salmon fishing period during June 20 in the South Unimak and Shumagin Islands salmon fisheries.

JUSTIFICATION:

The June 19-25 sockeye salmon guideline harvest levels are 57,000 and 324,000 for the Shumagin Islands and South Unimak Islands fisheries respectively. Fishing time is needed for the fishermen to catch their allocation.

EMERGENCY ORDER NO. 4-F-M-17-87

Issued at Cold Bay, June 19, 1987

EXPLANATION:

This emergency order closes Belkofski Bay to commercial herring fishing effective 12:00 Noon June 19 through April 14, 1988.

JUSTIFICATION:

The 1987 Alaska Peninsula-Aleutians herring sac-roe management plan states that the season guideline harvest level for Belkofski Bay is 30 tons. To date the harvest is 34 tons. A closure of the fishery is needed to prevent overexploitation.

EMERGENCY ORDER NO. 4-F-M-18-87

Issued at Cold Bay, June 20, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time 24 hours until 10:00 P.M. June 21 in the South Unimak fishery and allows a 6:00 A.M. June 22 until 10:00 P.M. June 23 commercial salmon fishing period in the Beaver-Balboa-Stepovak Bay fishery.

JUSTIFICATION:

The catches of sockeye salmon at South Unimak are very light and the fishery is hampered by high winds. More fishing time is necessary for the fleet to catch its June 19-25 sockeye allocation of 324,000 fish.

It is estimated that the Southeastern District Mainland fishery (Beaver, Balboa, and Stepovak Bays) will be well below its allocation of 6.2 percent of the Chignik destined sockeye harvest by June 22. The percentage taken through June 25 should also be high enough that it will not fall significantly below 6 percent by the end of the early-late Chignik run overlap period (late June-early July) when the Chignik Area can fish but the Southeastern District Mainland fishery can't.

EMERGENCY ORDER NO. 4-F-M-19-87

Issued at Cold Bay, June 21, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing 22 hours until 8:00 P.M. June 22 in the South Unimak fishery.

JUSTIFICATION:

The catches of sockeye at South Unimak appear light to moderate. More fishing time is necessary for the fleet to catch the June 19-25 allocation of 324,000 sockeye. The catch during this quota period was only 52,000 sockeye prior to June 21.

EMERGENCY ORDER NO. 4-F-M-20-87

Issued at Cold Bay, June 23, 1987

EXPLANATION:

This emergency order establishes a 12:00 Noon June 25 until 10:00 P.M. June 26 commercial salmon fishing period in the South Unimak fishery and a 10:00 A.M. until 10:00 P.M. commercial salmon fishing period in the Shumagin Islands Section during June 26.

JUSTIFICATION:

Fishing time is needed to catch the remaining 18,000 sockeye remaining on the South Unimak June 19-25 quota (after 74,000 overcatch from the June 12-18 period has been deducted) and to harvest the June 26-30 quota. A 12 hour period is needed to allow Shumagin Islands fishermen the opportunity to harvest the remainder (25,000 fish) of their sockeye quota.

EMERGENCY ORDER NO. 4-F-M-21-87

Issued at Cold Bay, June 28, 1987

EXPLANATION:

This emergency order establishes 6:00 A.M. Monday until 6:00 P.M. Tuesday fishing periods each week for the Bechevin Bay Section.

JUSTIFICATION:

Chum salmon runs are developing rapidly along the North Peninsula. Fishing time is needed to harvest the early run Bechevin Bay chums. By establishing 36 hour fishing periods to coincide with those of the adjacent Urilia Bay Section should keep gear from being overly concentrated on individual stocks.

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EMERGENCY ORDER NO. 4-F-M-22-87

Issued at Cold Bay, July 1, 1987

EXPLANATION:

This emergency order establishes a 4:00 A.M. July 6 until 10:00 P.M. July 8 commercial salmon fishing period in the Shumagin Islands Section, that portion of the West Stepovak Section located between Dorenoi Bay and Dent Point, and that portion of the Alaska Peninsula Area's South (Pacific) side located between the longitude of Cape Lazaref and McGinty Point.

JUSTIFICATION:

South Peninsula chum salmon runs and the Orzinski Bay sockeye run are anticipated to be strong. A 66 hour fishing period will give the fleet a chance to harvest the resource and test the strength of the runs.

EMERGENCY ORDER NO. 4-F-M-23-87

Issued at Cold Bay, July 2, 1987

EXPLANATION:

This emergency order closes that portion of the south (Pacific) side of the Alaska Peninsula Area located between the longitudes of Bold Cape and McGinty Point to commercial herring fishing during July 16, 1987 through February 28, 1988.

JUSTIFICATION:

Preliminary information indicates that recent sac-roe harvests on minor sac-roe stocks within this area are adequate when considering the current status of known stocks within this area. Additional harvest on these stocks during the food/bait season would not be in the best biological interest of these stocks, which in general appear much smaller and more fragile than expected this year.

Also there is concern for the Canoe Bay, Pavlof Bay, and Belkofski Bay stocks which, having already been fully exploited in 1987, appears to migrate into this area during late summer and fall and thus would be vulnerable to excessive exploitation during the food/bait fishery when fleet monitoring is very difficult or near impossible.

EMERGENCY ORDER NO. 4-F-M-24-87

Issued at Cold Bay, July 3, 1987

EXPLANATION:

This emergency order closes the commercial salmon fishing season until further notice in that portion of the Bear River Section located south and west of

Sandy River and that portion of the Urilia Bay Section located west of the longitude of Otter Point, after July 5.

JUSTIFICATION:

The Bear River escapement is dropping off to less than 1,000 sockeye per day due to intensive fishing effort. A large sanctuary will be necessary to protect sockeye gathered near the stream terminus after the scheduled three day closure of the fishing periods while allowing the fleet to harvest sockeye northeast of Sandy River.

A recent survey indicated that the Urilia Bay sockeye escapement is very poor despite a strong run and brief fishing periods. A closure of the Urilia Bay fishery is necessary to prevent overexploitation of the stocks.

The sockeye escapement past the Nelson River counting tower is well below the goals of 30,000 by June 30 and 65,000 by July 5. Catches in the Nelson Lagoon fishery averaged 6,000 sockeye per day during the past week, indicating a mediocre run. By allowing the fishery to reopen for 18 hours during July 6 will indicate if the run is late or weak. Fishing time (if any) after July 6 will depend on the strength of escapements and the July 6 catch.

EMERGENCY ORDER NO. 4-F-M-25-87

Issued at Cold Bay, July 8, 1987

EXPLANATION:

This emergency order establishes a 6:00 A.M. until 12:00 midnight commercial salmon fishing period during July 9 in the Nelson Lagoon Section. This emergency order supersedes Emergency Order No. 4-F-M-24-87 in regards to the Nelson Lagoon Section.

JUSTIFICATION:

The escapement past Nelson River Tower has increased dramatically during the past 24 hours bringing the accumulated sockeye count to approximately 63,000 through 9:00 A.M. July 8. The commercial catch during the last fishing period (July 6) was 14,800 compared to 8,800 during June 29, indicating that the run is increasing. At the present escapement rate, it is likely that the 90,000 July 10 escapement objective will be surpassed. An 18 hour fishing period will allow the fishermen a chance to harvest the run and test its strength.

EMERGENCY ORDER NO. 4-F-M-26-87

Issued at Cold Bay, July 8, 1987

EXPLANATION:

This emergency order establishes a 4:00 A.M. July 13 until 10:00 P.M. July 15 commercial salmon fishing period in that portion of the Alaska Peninsula Area's

Pacific side located between Cape Lazaref and McGinty Point, the Shumagin Islands Section, and that portion of the East and West Stepovak Sections located north of a line from Renshaw Point to Osterback Creek.

JUSTIFICATION:

The South Peninsula chum salmon runs are anticipated to be very strong and a pink salmon harvest of up to 3,000,000 fish is expected. The Orzinski sockeye run is underway. Fishing time is needed to harvest the resource and test run strength, particularly while fish quality is high.

EMERGENCY ORDER NO. 4-F-M-27-87

Issued at Cold Bay, July 12, 1987

EXPLANATION:

This emergency order reopens the commercial salmon fishing season effective July 13 in that portion of the Bear River Section located west of Sandy River which was closed by emergency order 4-F-M-24-87.

A 6:00 A.M. until 12:00 midnight commercial salmon fishing period is allowed in the Nelson Lagoon Section.

JUSTIFICATION:

The minimum end of the Bear River sockeye escapement goal (110,000 to 125,000) has been reached. There is no longer a need for keeping the season closed in that portion of the Bear River Section located west of Sandy River.

The Nelson Lagoon sockeye escapement past the counting tower is 90,600 through July 11. The fishery has been closed since July 9 and daily escapements have been averaging 4,700 fish during the past two days. The minimum end of the season escapement goal can be reached while allowing an 18 hour fishery during July 13.

EMERGENCY ORDER NO. 4-F-M-28-87

Issued at Cold Bay, July 13, 1987

EXPLANATION:

This emergency order restores the 6:00 A.M. Monday until 12:00 midnight weekly fishing periods listed in the 1987 commercial finfish regulation book for the Nelson Lagoon Section.

JUSTIFICATION:

The Nelson Lagoon sockeye escapement is presently 105,000 past the counting tower. This is above the lower end of the season escapement goal of 100,000 to

150,000 and on target for the midpoint. More fishing time is needed for the fleet to harvest the surplus.

EMERGENCY ORDER NO. 4-F-M-29-87

Issued at Cold Bay, July 15, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time 24 hours until 10:00 P.M. July 16 in that portion of the Alaska Peninsula Area's Pacific side located between Cape Lazaref and McGinty Point, the Shumagin Islands Section, and that portion of the East and West Stepovak Sections located north of a line from Renshaw Point to Osterback Creek.

JUSTIFICATION:

High southeast winds are preventing the fleet from fishing in most of the South Peninsula during July 15. A 24 hour extension can be granted to make up for lost fishing time while not endangering the resource.

EMERGENCY ORDER NO. 4-F-M-30-87

Issued at Cold Bay, July 15, 1987

EXPLANATION:

This emergency order extends the present commercial salmon fishing period during the open season until 6:00 P.M. July 23 in the Bear River, Three Hills and Herendeen-Moller Bay Sections.

The present commercial salmon fishing period in the Nelson Lagoon Section is extended 24 hours until 12:00 midnight Friday July 17.

JUSTIFICATION:

The Bear River sockeye escapement is presently 140,000, well above the upper end of the July 15 goal of 125,000. At the present daily escapement rate of 7-8,000 fish per day, it should be easy to reach the July 16-August 5 goal of 40,000 to 50,000. More fishing time is justified to harvest the resource.

The Nelson Lagoon sockeye escapement past the counting tower is 116,000, as compared to a July 15 goal of 110,000. More fishing time is justified to harvest the resource.

EMFRGENCY ORDER NO. 4-F-K-31-87

Issued at Cold Bay, July 16, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time 24 hours until 10:00 P.M. July 17 in that portion of the Alaska Peninsula Area's Pacific side located between Cape Lazaref and McGinty Point and the Shumagin Islands Section.

JUSTIFICATION:

High southeast winds continue to plague much of the fishing along the South Peninsula. Indications are that the pink salmon run which is not expected to arrive in force until another 5-10 days may be weaker than expected. Chum salmon runs get underway earlier than pinks in the Alaska Peninsula Area and the South Peninsula chum salmon runs are anticipated to be very strong. It is therefore desirable to harvest chums early before a reduced fishing effort may be necessary to protect pink salmon. The quality and value of chums are also higher early in the season. More fishing time is needed to harvest chum salmon in most of the South Peninsula. However chum runs so far appear weak at the head of Stepovak Bay and it is anticipated that Orzinski sockeye need a closure to increase the escapement, therefore no more fishing time is allowed at this time in Stepovak Bay.

EMERGENCY ORDER NO. 4-F-M-32-87

Issued at Cold Bay, July 17, 1987

EXPLANATION:

This emergency order allows continuous commercial salmon fishing time in the Nelson Lagoon Section from July 17 through July 23.

JUSTIFICATION:

The season midpoint (125,000) of the Nelson River sockeye escapement goal has been passed and counts during the past two days have averaged 5,000 with the fishery open. Sockeye catches in the Nelson Lagoon are averaging over 5,000 fish per day which is very good for this time of the year. More fishing time is justified to harvest the resource.

EMERGENCY ORDER NO. 4-F-M-33-87

Issued at Cold Bay, July 18, 1987

EXPLANATION:

This emergency order establishes a 4:00 A.M. July 20 until 10:00 July 22 commercial salmon fishing period in that portion of the Alaska Peninsula Area's

Pacific side located between Cape Lazaref and McGinty Point, the Shumagin Islands Section, and that portion of the East and West Stepovak Sections located north of a line from Renshaw Point to Osterback Creek.

JUSTIFICATION:

The South Peninsula chum salmon runs are anticipated to be very strong and a pink salmon harvest of up to 3,000,000 fish is expected. The Orzinski sockeye run is underway. Fishing time is needed to harvest the resource and test run strength, particularly while fish quality is high.

EMERGENCY ORDER NO. 4-F-M-34-87

Issued at Cold Bay, July 19, 1987

EXPLANATION:

This emergency order closes commercial herring fishing in the following portion of statistical area M effective 12:00 Noon July 19, 1987: The Unimak, Akutan, and Unalaska Districts and that portion of the Umnak District east of Samalga Pass.

JUSTIFICATION:

As of 12:00 Noon July 19, 1987 approximately 2,350 short tons of herring will have been harvested from the vicinity of Makushin Bay, Volcano Bay, Driftwood Bay, Unalaska Bay and Akutan Bay. These bays are located within the geographical area described in 5 AAC 27.660 HARVEST STRATEGY, which also states that the commercial herring harvest shall not exceed (3,527 short tons) within that area. For the 1987 food/bait fishery this harvest ceiling was reduced to 2,351 short tons. The current fishery situation, i.e. large quantities of available herring and an extremely efficient fleet of catcher vessels and tender vessels indicates that this adjusted harvest ceiling may be exceeded if the fishery is allowed to continue. Consequently, this emergency order closure is necessary to comply with the Alaska Board of Fisheries strategy for commercial herring fishing in the South Peninsula/Aleutian management area.

EMERGENCY ORDER NO. 4-F-M-35-87

Issued at Cold Bay, July 19, 1987

EXPLANATION:

This emergency order closes commercial herring fishing in that portion of statistical Area M extending from Cape Sarichef to Cape Menshikof after the sac-roe season which ended July 15. The food-bait herring season was originally scheduled to start August 15.

JUSTIFICATION:

Herring occurring along the North Peninsula (that portion of Area M between Cape Sarichef and Cape Menshikof) during the herring food/bait season are thought to be part of an extensive biomass of mixed stock origins which extend into that portion of the Eastern Aleutian Islands regulated by the Board of Fisheries harvest strategy.

EMERGENCY ORDER NO. 4-F-M-36-87

Issued at Cold Bay, July 22, 1987

EXPLANATION:

This emergency order allows continuous commercial salmon fishing time in the Nelson Lagoon Section from July 17 through July 30.

JUSTIFICATION:

The escapement of sockeye salmon past the Nelson River counting tower is over 136,000, well above the midpoint of the 100,000 to 150,000 escapement goal. Daily escapements during the previous three days have averaged 1,200 sockeye with continuous fishing time. At this rate the escapement will climb to near the high end of the escapement goal range, with continuous fishing time. More fishing time is justified to harvest the resource.

EMERGENCY ORDER NO. 4-F-M-37-87

Issued at Cold Bay, July 22, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time 24 hours until 10:00 P.M. July 23 in that portion of the Alaska Peninsula Area's Pacific side located between Cape Lazaref and McGinty Point and the Shumagin Islands Section.

JUSTIFICATION:

High southeasterly winds have plagued much of the fishing along the South Peninsula. Chum salmon catches in the Shumagin Islands indicate large numbers of fish moving into the area. However, it is anticipated that Orzinski sockeye need a closure to increase the escapement and the chum run at the head of Stepovak Bay only appears fair, therefore no more fishing time is allowed at this time in Stepovak Bay. In the balance of the South Peninsula presently open, more fishing time is needed to harvest chum salmon.

EMERGENCY ORDER NO. 4-F-M-38-87

Issued at Cold Bay, July 22, 1987

EXPLANATION:

This emergency order reopens the Eastern Aleutians food/bait herring fishery from 6:00 A.M. until 8:00 P.M. during July 23.

JUSTIFICATION:

Emergency order 4-F-M-34-87 closed the Eastern Aleutians herring food/bait fishery when it was estimated that the allowable harvest of 2,351 short tons had been taken. A more accurate estimate of the catch after the fishery was closed indicated that the catch fell 300-400 s.t. below the allowable catch. Since the fishery closed the herring have dispersed and the catch rate should be much lower than earlier. A 14 hour fishing period on July 23 should allow the fleet to reach the total allowable catch.

EMERGENCY ORDER NO. 4-F-M-39-87

Issued at Cold Bay, July 23, 1987

EXPLANATION:

This emergency order allows a 4:00 A.M. July 27 until 10:00 P.M. July 28 commercial salmon fishing period in that portion of the Alaska Peninsula Area's south (Pacific) side located east of the longitude of Cape Lazaref.

JUSTIFICATION:

South Peninsula chum salmon runs are strong, however pink salmon runs are either weak or late. A 42 hour fishery during July 27-28 will give the fleet a chance to harvest chums and test the pink salmon run strength.

EMERGENCY ORDER NO. 4-F-M-40-87

Issued at Cold Bay, July 25, 1987

EXPLANATION:

This emergency order closes the commercial salmon fishing season in that portion of the Bear River Section located south and west of Sandy River after July 26.

JUSTIFICATION:

The July 16-August 5 sockeye escapement goal for Bear River is 40,000 to 50,000, the count through July 24 being only 8,500. Less than 400 sockeye have been counted through the weir during the previous 5 days. An expanded closure

near the terminus of Bear River is needed to enable fish gathering in the area during the scheduled 3 day closure of the entire fishery, to get up the river.

EMERGENCY ORDER NO. 4-F-M-41-87

Issued at Cold Bay, July 30, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time 24 hours until 6:00 P.M. Friday during the week of July 26-August 1 in the Izembek-Moffet Section.

JUSTIFICATION:

Chum salmon escapements are good for this date in the Izembek-Moffet Bay Section. Daily catches during the present week are strong, averaging 1,200 chums per boat. An additional 24 hours of fishing time can be granted at this time without endangering the resource.

EMERGENCY ORDER NO. 4-F-M-42-87

Issued at Cold Bay, July 31, 1987

EXPLANATION:

This emergency order closes the commercial salmon fishing season during August 2 through August 9 in the following locations:

- (1) that portion of the Herendeen-Moller Bay Section enclosed by a line from Entrance Point to Harbor Point.
 - (2) Bear River and Three Hills Sections.
 - (3) that portion of the Ilnik Section located outside of Ilnik Lagoon.
- (4) that portion of the Cinder River Section located west of 158°20' W. long.

This emergency order supersedes emergency order no. 4-F-M-40-87.

JUSTIFICATION:

The Bear River sockeye escapement goal for the July 16-August 5 period is 40,000 to 50,000. To date the escapement is only 16,000 with daily counts averaging less than 2,000 fish per day despite an extensive closure in the terminal area. Catches in the open area during the previous fishing period are very weak. A closure during the early portion of the post August 5 escapement period will enable the escapement for that period to get a head start on that fishery.

EMERGENCY ORDER NO. 4-F-M-43-87

Issued at Cold Bay, August 1, 1987

EXPLANATION:

This emergency order allows a 12:00 Noon August 3 until 10:00 P.M. August 4 commercial salmon fishing period in that portion of the Alaska Peninsula Area's south (Pacific) side located east of the longitude of Cape Lazaref. The closed waters at the head of Stepovak Bay will remain the same as before July 29.

JUSTIFICATIONS:

Large numbers of chum salmon are building up in bays and pink salmon are beginning to appear in some places. A 34 hour fishing period will enable the fishing fleet to harvest excess chums while testing the strength of pink salmon runs. Due to the limited amount of fishing time anticipated because of questionable pink salmon run strength, it is desirable to crop the buildup of chums at the head of Stepovak Bay at this time.

EMERGENCY ORDER NO. 4-F-M-44-87

Issued at Cold Bay, August 4, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time 24 hours until 10:00 P.M. August 5 in that portion of the Alaska Peninsula Area's south (Pacific) side located east of the longitude of Cape Lazaref.

JUSTIFICATION:

High winds prevented fishing during the evening of August 3 and are eliminating fishing during August 4. A 24 hour extension of the fishing period will enable fishermen to make up for fishing time lost (which is most of the originally scheduled fishing period).

EMERGENCY ORDER NO. 4-F-M-45-87

Issued at Cold Bay, August 6, 1987

EXPLANATION:

This emergency order extends commercial salmon fishing time 48 hours until 6:00 P.M. Saturday in the Izembek-Moffet Bay Section during the week of August 2-8.

JUSTIFICATION:

The Izembek-Moffet chum salmon runs are very strong but high winds have prevented fishing during most of the week. An additional 48 hours of fishing time is needed for the fleet to harvest the resource.

EMERGENCY, ORDER NO. 4-F-M-46-87

Issued at Cold Bay, August 8, 1987

EXPLANATION:

This emergency order extends the commercial salmon fishing season through August 11 in the Bechevin Bay and Izembek-Moffet Bay Sections. The fishing period is extended 6 hours in the Bechevin Bay section until 12:00 midnight Tuesday, and allows fishing only during subsequent fishing periods established by emergency order after August 11. The season in that portion of the Urilia Bay Section located east of Otter Point is closed after August 9. This emergency order supersedes emergency order no. 4-F-M-21-87 in regards to the fishing periods in the Bechevin Bay Section.

JUSTIFICATION:

Swanson Lagoon sockeye and chum salmon escapements are poor for this date, a closure of the fishery is necessary to maintain the resource. The Izembek-Moffet Bay chum run still appears strong but high winds are preventing the fleet from fishing. Late Bechevin Bay chum stocks are now arriving and are anticipated to be strong. A 24 hour extension of the season will enable the fleet to better harvest Bechevin Bay and Izembek-Moffet chums.

EMERGENCY ORDER NO. 4-F-M-47-87

Issued at Cold Bay, August 9, 1987

EXPLANATION:

This emergency order extends the waters closed to commercial salmon fishing around Bear River to include all waters from King Salmon to Sandy River.

JUSTIFICATION:

The post August 5 Bear River sockeye escapement goal is 50,000 to 75,000. Through August 9, the escapement is 10,300. The fishery reopens on August 10 and is expected to reduce the daily escapement rate below what is needed to reach the season goal unless a larger sanctuary is created around the Bear River terminus.

EMERGENCY ORDER NO. 4-F-M-48-87

Issued at Cold Bay, August 11, 1987

EXPLANATION:

This emergency order establishes a 12:00 Noon August 12 until 8:00 P.M. August 14 commercial salmon fishing period in the Pavlof Bay, Mino Creek-Little Coal Bay, and Deer Island Sections. The closed waters at Mino Creek and Eastern Creek (Deer Island) are reduced to include only those waters upstream of the stream terminus at the ocean shoreline.

JUSTIFICATION:

Pink salmon escapements in the Deer Island, Pavlof Bay, and Mino Creek-Little Coal Bay Sections are healthy for this date with ideal escapement levels being achieved in Eastern Creek (18,000) and Mino Creek (237,000). Fishing time and area is needed for the fleet to harvest the resource.

EMERGENCY ORDER NO. 4-F-M-49-87

Issued at Cold Bay, August 11, 1987

EXPLANATION:

This emergency order extends the commercial salmon fishing season 48 hours through August 13 in the Izembek-Moffet Bay Section.

JUSTIFICATION:

High winds prevented fishing during August 10 and August 11. Catches are very strong with effort remaining light. Four boats caught 10-11,000 chums during August 11 which is very good. An extra day fishing can be allowed at this time without endangering the resource.

EMERGENCY ORDER NO. 4-F-M-50-87

Issued at Cold Bay, August 14, 1987

EXPLANATION:

This emergency order closes the commercial salmon fishing season after August 16 in the following locations:

- (1) that portion of the Herendeen-Moller Bay Section enclosed by a line from Entrance Point to Harbor Point.
- (2) Bear River and Three Hills Sections.

- (3) that portion of the Ilnik Section located outside of Ilnik Lagoon.
- (4) that portion of the Cinder River Section located west of 158°20' W. long.

JUSTIFICATION:

The Bear River sockeye escapement goal after August 5 is 50,000 to 75,000 fish. To date the escapement is only 20,000. Daily catch rates are less than 5,000 sockeye per day even though effort is intense. With such a weak run and high effort level, it will be necessary to close the entire fishery until the lower end of the escapement range is reached or else the desired escapement level will not be achieved.

EMERGENCY ORDER NO. 4-F-M-51-87

Issued at Cold Bay, August 18, 1987

EXPLANATION:

This emergency order allows a 12:00 Noon August 19 until 8:00 P.M. August 20 commercial salmon fishing period in the Shumagin Islands and Balboa Bay Sections and that portion of the West Stepovak Section located west of Blunt Point. The closed waters are expanded to include the following:

- (1) all waters of Baralof Bay west of the longitude of the Peter Pan Seafoods dock at Squaw Harbor.
 - (2) all waters of Delarof Harbor west of the entrance at Unga village.
 - (3) all waters of Little Harbor.

JUSTIFICATION:

Large numbers of pink salmon have suddenly appeared in the terminal waters of the Shumagin Islands and that portion of the Alaska Peninsula located between Point Aliaksin and Blunt Point. There are reports of large numbers of pinks still traveling past the capes. A 32 hour fishing period will allow the fleet to harvest surplus fish coming into the bays. Pink salmon do not readily go into Squaw Harbor, Delarof Harbor, and Little Harbor streams, large closures around these streams are necessary to protect fish needed for escapement from being caught before an adequate number have entered the streams.

EMERGENCY ORDER NO. 4-F-M-52-87

Issued at Cold Bay, August 18, 1987

EXPLANATION:

This emergency order supersedes emergency order 4-F-M-47-87 and 4-F-M-50-87. The closure at Bear River is reduced down to include waters within 500 yards of

the stream terminus. The season is reopened through September 30 in the following locations:

- (1) Bear River and Three Hills Sections.
- (1) that portion of the Herendeen-Moller Bay Section enclosed by a line from Harbor Point to Entrance Point.
 - (3), that portion of the Ilnik Section located outside of Ilnik Lagoon.
- (4) that portion of the Cinder River Section located west of 158°20' W. long.

JUSTIFICATION:

It is anticipated that the lower end of the post August 5 Bear River sockeye escapement goal of 50,000 to 75,000 will be reached on August 19. Previous restrictions placed on the fishery by emergency order are no longer needed.

EMERGENCY ORDER NO. 4-F-M-53-87

Issued at Cold Bay, August 21, 1987

EXPLANATION:

This emergency order allows a 3 hour commercial salmon harvest from 12:00 Noon until 3:00 P.M. during August 22 in the Northeast corner of Stepovak Bay.

JUSTIFICATION:

The number of chum salmon in the northeast corner of Stepovak Bay exceeds escapement needs. A three hour opening with an enforcement vessel on hand will enable the fleet to harvest the surplus.

EMERGENCY ORDER NO. 4-F-M-54-87

Issued at Cold Bay, August 24, 1987

EXPLANATION:

This emergency order allows a 6 hour commercial salmon fishery from 10:00 A.M. until 4:00 P.M. during August 25 in the Bechevin Bay Section, in Volcano Bay, and that portion of the Pavlof Bay Section located between Arch Point and Black Point.

JUSTIFICATION

There is a surplus of chum salmon available at Volcano Bay, outside of Long John Lagoon and in Bechevin Bay. With adequate enforcement, it appears that chums can be harvested in these areas with minimal damage to the pink salmon resource.

EMERGENCY ORDER NO. 4-F-M-55-87

Issued at Cold Bay, August 31, 1987

EXPLANATION:

This emergency order allows a 6:00 A.M. September 5 until 8:00 P.M. September 7 commercial salmon fishing period in the Northwestern District and along the Alaska Peninsula Area's south (Pacific) side. The fishing season in the Northwestern District is reopened for the month of September and Thin Point Cove's closed waters are reduced to include only those waters within 500 yards of Thin Point Lagoon and the other salmon stream emptying directly into Thin Point Cove.

JUSTIFICATION:

Coho salmon runs are underway and sockeye, pink, and chum salmon should be well within closed waters by September. The season needs to be reopened in the Northwestern District after August 10 to facilitate a coho salmon fishery. The Thin Point sockeye run is over and more fishing area is needed to enable the fleet to harvest coho.

EMERGENCY ORDER NO. 4-F-M-56-87

Issued at Cold Bay, September 5, 1987

EXPLANATION:

This emergency order:

- 1. Closes the commercial salmon fishing season in the Cinder River Section after September 5.
- 2. Closes the commercial salmon fishing season in the Nelson Lagoon Section after September 7.
- 3. Allows continuous commercial salmon fishing time in the Port Heiden Section after September 5.

JUSTIFICATION:

The Cinder River Section has received intense fishing pressure despite a mediocre coho run. The escapements into Mud Creek and Cinder River are 300 and

2,400 coho respectively, less than 20 percent of the desired level for the season and the run is past its peak.

The season coho escapement target at Nelson Lagoon is 20-25,000 fish in the Sapsuk River. The Sapsuk River escapement is presently estimated at 7,000 with an undetermined number of fish between Nelson Lagoon and the Sapsuk River. Based on previous catches, it is estimated that the season escapement will fall into the 20-25,000 range if the season is closed after September 7.

The coho escapement into the Meshik River is estimated at 26,000 fish, which is at the desired season level. The Port Heiden fishery is not as efficient at stopping coho from reaching the river as is the case with the Cinder River and Nelson Lagoon fisheries.

EMERGENCY ORDER NO. 4-F-M-57-87

Issued at Cold Bay, September 7, 1987

EXPLANATION:

This emergency order extends the present commercial salmon fishing period until 8:00 P.M. September 11 in the Northwestern District and along the Alaska Peninsula Area's (Pacific) side.

JUSTIFICATION:

Chum salmon escapements are good to excellent in most streams. Coho catches indicate a strong run. More fishing time is justified to harvest late chums while they are in marketable condition and to harvest cohos.

EMERGENCY ORDER NO. 4-F-M-58-87

Issued at Cold Bay, September 8, 1987

EXPLANATION:

Emergency order reopens the Nelson Lagoon Section to commercial salmon fishing for 18 hours from 6:00 A.M. until 12:00 midnight September 9.

JUSTIFICATION:

The September 7 Nelson Lagoon commercial catch of 10,500 coho was unexpectedly high. The coho escapement into the Sapsuk River is estimated at 8-11,000. Based on the September 7 catch it is calculated that the season escapement goal of 20-25,000 can be reached while allowing another short fishing period.

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EMERGENCY ORDER NO. 4-F-M-59-87

Issued at Cold Bay, September 11, 1987

EXPLANATION:

This emergency order establishes 6:00 A.M. Monday until 8:00 P.M. Friday commercial salmon fishing periods in the Southeastern District for the balance of the fishing season after September 12.

JUSTIFICATION:

Fishing effort in the Southeastern District presently consists of less than twenty set gill netters despite good catches of both sockeye and coho salmon. Most of the fishing occurs well away from terminal spawning areas and more fishing time can be allowed without jeopardizing the resource at this time in the Southeastern District. Fishing in the balance of the South Peninsula and the Northwestern District occurs much closer to the terminal areas and there is a considerable amount of subsistence activity in some of the systems. A closure after September 11 in the Northwestern District and that portion of the South Peninsula outside of the Southeastern District is necessary at this time to assure that both escapement and subsistence needs are met.

EMERGENCY ORDER NO. 4-F-M-60-87

Issued at Cold Bay, September 16, 1987

EXPLANATION:

This emergency order reopens the commercial salmon fishing season in that portion of the Herendeen-Port Moller Section not enclosed by a line from Harbor Point to Entrance Point effective September 17 through September 30.

JUSTIFICATION:

Good chum salmon escapements have been received in all major Herendeen and Port Moller Bay streams. A reopening of the season will provide for utilization of any extremely late chums in the area and also allow the fleet to harvest coho salmon.

A 24 hour extension of the weekly fishing period will enable the fleet to make up for fishing time lost to high northwest winds during September 16 in the Bear River, Three Hills, and Herendeen-Moller Bay Sections. Fishing effort is very light, consisting of only 4-5 drift gillnet boats.

EMERGENCY ORDER NO. 4-F-M-61-87

Issued at Cold Bay, September 29, 1987

EXPLANATION:

This emergency order extends the commercial salmon fishing season through October 31 in the Southeastern District.

JUSTIFICATION:

Fishing effort has dropped off to only two set gillnetters and weather is preventing fishing during much of the time. However, the catches indicate that sockeye, coho, and chum salmon are still moving into the area. Such light effort under stormy fishing conditions will not jeopardize the resource. An extension of the season will allow the fishermen opportunity to harvest the resource while providing information to the department on just how long salmon runs in the area continue.

GAME OBSERVATIONS

The lower Alaska Peninsula caribou herd appeared to be on a decline according to spring and summer surveys. Cow to calf ratios were poor. There were indications that the animals were in poor condition. The season was closed by emergency order after August 31. However, winter counts in the vicinity of Cold Bay indicated that the herd was much larger than estimated earlier and a winter subsistence season was granted. The winter survey indicated that the population was about 6,500.

The Unimak caribou population is still low. During the summer less than 10 caribou were observed between St. Catherine Cove and Urilia Bay, during salmon survey flights. However September flights indicated that there were at least 100 animals on that part of Unimak Island, maybe many more.

The brown bear population appears stable.

Wolves were frequently observed.

The red fox population at Cold Bay appears to be on the increase.

The willow ptarmigan abundance in the vicinity of Cold Bay appeared to be at the highest level since about 1978. People reported high populations of ptarmigan along the mainland opposite Sand Point.

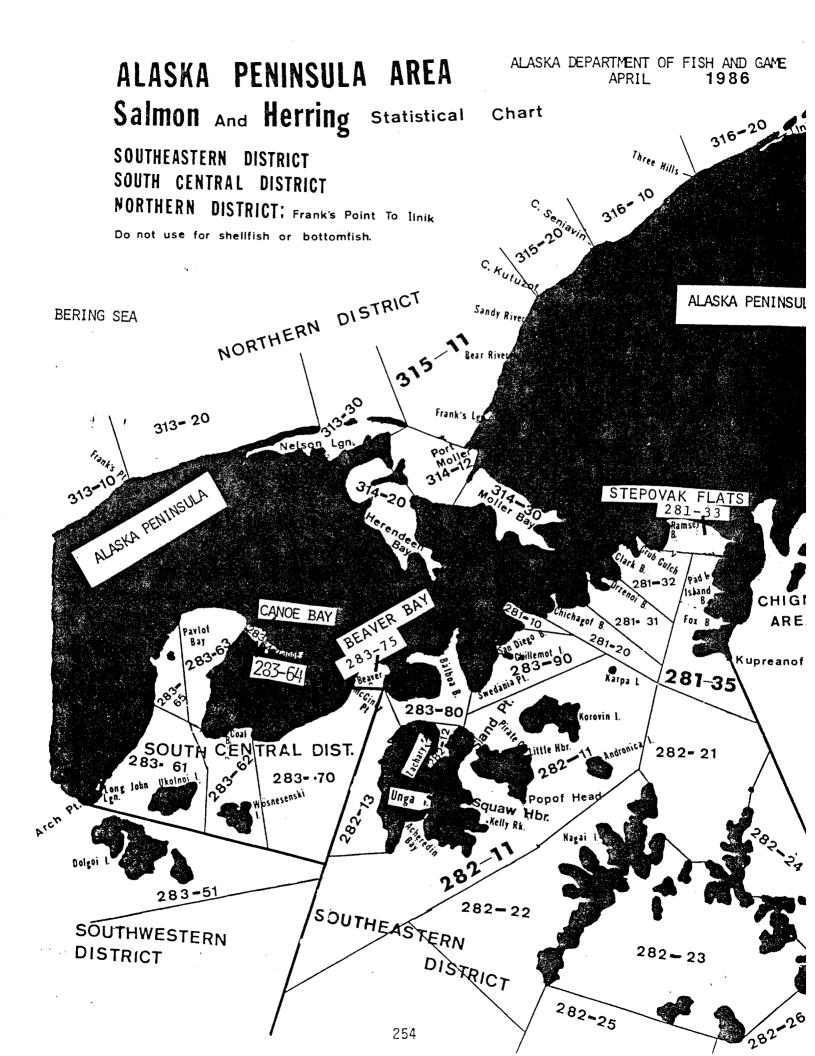
MISCELLANEOUS ACTIVITY OR OBSERVATIONS

The bottomfish industry has continued to be Americanized until virtually no allocation was left for direct foreign fishing beginning in 1988. Foreign processing of American caught fish (Joint Ventures or JV's) remained high during 1987 but much of the allocations are being taken by domestic catching and processing. American catcher/processor vessels are becoming much more numerous. Considerable effort is being expended by local fishermen along the South Peninsula for cod (primarily caught with longlines) with the King Cove and Sand Point shore plants processing.

Ken Manthey who replaced Paul Pedersen as Regional Finfish Supervisor in 1986, retired after 17 years of permanent service in August 1987. Manthey was replaced by Pete Probasco, Chignik Area Management Biologist. Rich Peterson, biometrician in Kodiak since 1973 also retired.

Sand Point held it's centennial celebration during August. It was well attended and everyone seemed to have a good time. Among the people attending were many former Sand Point residents who had not been back in many years. Governor Cowper also attended. Many events, including a coho salmon derby were held.

Sand Point Air Service went out of business after the summer of 1987. They sold their Sand Point facilities to Reeve Aleutian Airways. At the present time, Sand Point is left without an air taxi operator for the first time in approximately thirty years. At the present, there appears to be no other operator willing to move into Sand Point.

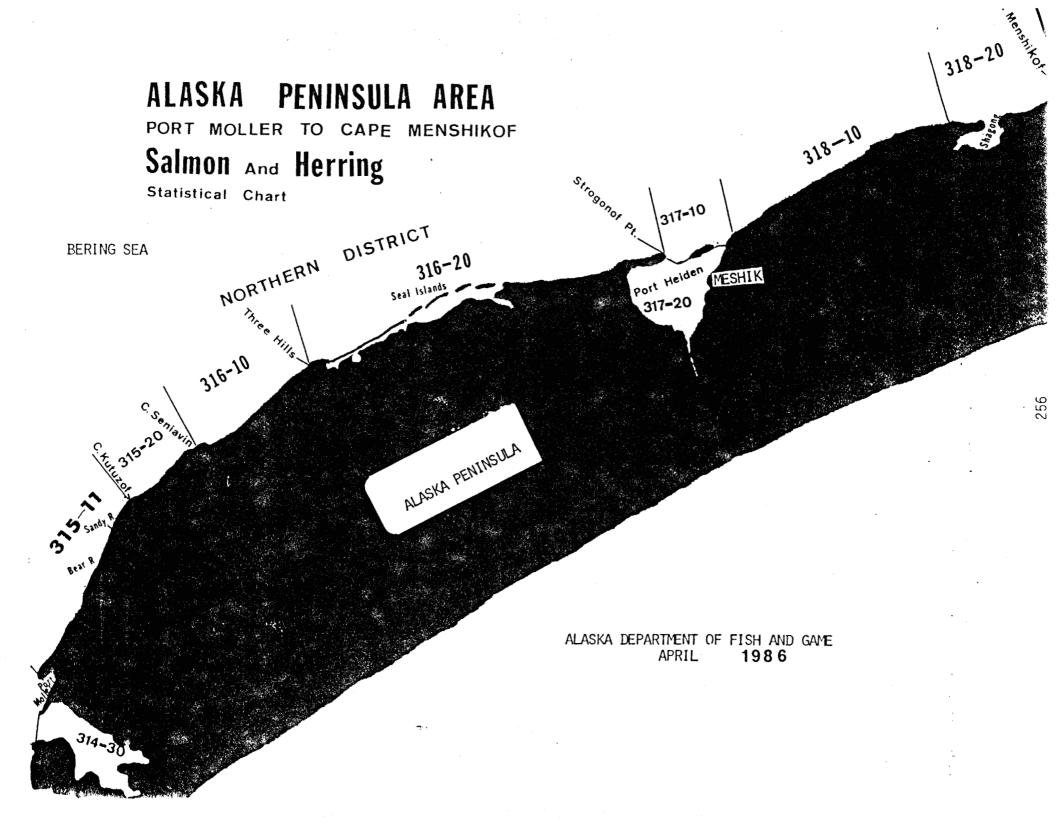


ALASKA PENINSULA AREA Salmon and Herring Statistical Chart ALASKA DEPARTMENT OF FISH AND GAME

APRIL 1986

NORTWESTERN, UNIMAK, And SOUTHWESTERN DISTRICTS

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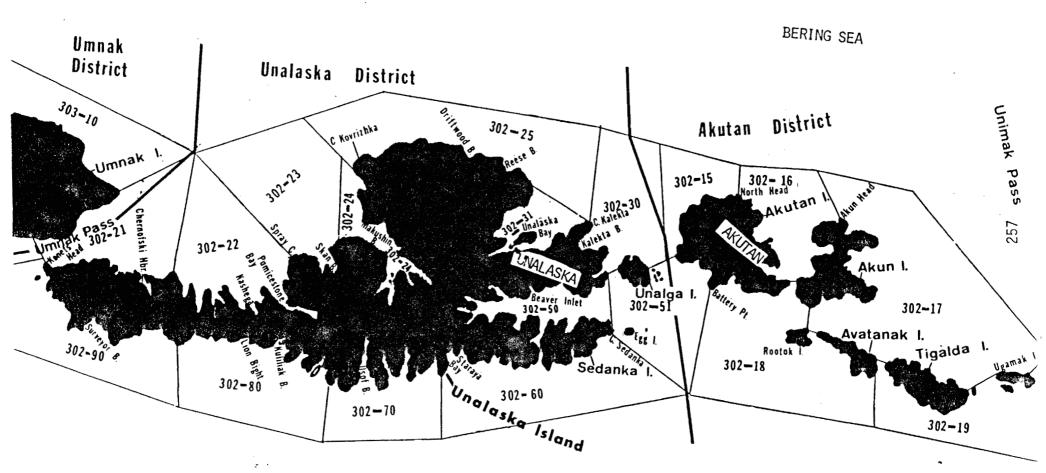


ALEUTIAN ISLANDS AREA

UNALASKA AND AKUTAN DISTRICTS

Statistical Chart For SALMON And HERRING

Do not use for shellfish or bottomfish.



ALASKA DEPARTMENT OF FISH AND GAME APRIL 1979

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12 Sun	1:40	8.1	1:34	7.9
13 Mon	2:07	8.7	2:38	8.0
	2:37	9.2	3:19	7.9
15 Wed	3:06	7.6	4:01	7.4
16 Thu	3:38	9.7	4:44	7.3
17 Fri	4:15	9.7	3:34	1.4
18 Sar	4:57	7.4	6:32	4.1
19 Sun	5:48	8.9	7:44	5.7
20 Mon 1	6:50	8.2	4:11	5.7
21 Tue	8:13	7.6	10:28	4.2
22 Wed	9:46	7.4	11:25	4.1
23 Thu	11:09	7.4		
24 Fri	0:10	7.7	12:13	7.4
25 Set	0:47	8.4	1:17	7.7
26 Sun	1:24	9.0	1:54	7.4
27 Mon	1:58	9.4	2:45	7.7
28 Tue 6	2:30	9.6	3:17	7.3
29 Wed	3:01	9.5	4:67	73
30 Thu	3:33	9.3	4.49	4.7

KORIAK TIDES	
APRIL KODIAK DISTRICT—STANDARD TIME	
LOW A.M. P.M	_
Dare h.m. fr. h.m.	₩.
1 Word 9:42 -0.9 9:39 2 Thu 10:21 -0.5 9:39 3 Fri 11:06 0.0 9:41 4 Sort 11:57 0.7 11:49 5 Sum	בנונונונונונונונונונונונונונונונונונונו
185	***************************************

KOOLAK E		DAYL		
HIGH	A.M	١.	۶.	M.
Dave	h.m.	Ħ.	A.m.	61.
1 Mon	4:55	8.1	6:46	4.1
2 Tue	5:37	7.6	7:14	6.1
3 Med	6:26	7.0	8:21	6.3
4 Thu 6	7:25 8:37	6.4 5.9	9:64 9:51	44
6 Ser	9:57	3.7	703 J	7.1 7.4
7 Sun	11:14	5.7	11:14	ä
# Mon			12:20	5.5
<u> </u>			11:37	1.1
9 Tue 10 Wed	2.12	200	1:14	6.3
11 Thu	0:62	9.6	2:12 2:01	4.4
12 Fri		10.4	2:01	7.3
13 Set		10.3	4561	7.1
14 Sun	3:53	10.3	3:27	7.3
15 Mon	4:45	9.8	411	7.3
16 Tue 17 Wed	5:40 4:41	7.0	7:12	7.4
18 Thu 1	7:49	8.0 7.0	8:84 8:54	7.4 7.9
19 Fri	9.09	63	9:50	43
20 Sat	10:32	5.7	10:41	1.5
21 Sun	11:49	5.6	11:20	¥.7
22 Mon		• • •	12:53	8.7
23 Tue 24 Wed	0:15 0:55	8.9	1:49	8.9
25 Thu	1:37	9.0 9.1	2:35 2:14	4.1
26 Fri .	2:15	9.1	2544	닖
27 Set	2:51	9.3	4:23	ដ
28 Sun	3:29	1.9	3100	ü
29 Mon	4:04	8.7	\$:35	6.6
30 Tue	4:36	1.3	6:09	4.7

KOOLAK DE	JUN Tours			_
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Mon			12:00	4.1
2 Tue 3 Wed	0:37	3.6	12:42 1:25	6.3 6.4
4Thu G	1:42	3.5	2:11 3:00	1.1 1.3 1.4
6 Sat 7 Sun 8 Mon	4:07 5:09 6:05	2.4 1.5 0.4	3549 4541 5:33	13
9 Tue	6:54 7:43	-0.6	6:20 7:11	14
11 Thu @	8:30 9:17	-2.2 -2.6	7:54 8:44	14
13 Sat 14 Sun	10:06 10:54	·2.7	9:42 10:38	14
15 Mon 16 Tue 17 Wed	11:42 D:45	2.0	11:37 12:33 1:23	14.
18 Thu 3	1:59	2.2	2:12	13
20 Sat 21 Sun	4:30 5:37	1.3	3:59 4:54	2.4 2.3
22 Mon 23 Tue	6:34 7:21	0.0	3:46 6:39	2.7
24 Wed 25 Thu	8:03 8:41	-0.9 -1.1 -1.2	7:34 8:84 8:43	1.1 1.1 1.0
26 Fri 4 27 Sort 28 Sun	9:17 9:52 10:25	12	9:22 10:01	17
29 Mon 30 Tue	11:00	-0.9 -0.5	10:44 11:26	2.9

	FOOLA	4 7000	•	
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2 Thu	5:58	7.1	6:43 7:18	7.4
3 Fri	6:49	6.4	7:34	13
4 501 6		5.7	1340	14
5 Sun	9:09	5.2	7:36	ü
∮ Mon	10.30	5.1	14:22	ü
7 Tue			12:02	1.3
Wed	. • • • •		11:17	1.4
7 Thu	0:15		1:00	3.7
10 Fri		9.6	2:02	4.2
11 Sar @		10.4	2:52	4.7
12 Sun		10.7	3:37 4:23	7.2
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14 Tue	4:37	9.8	3:48	ĹΪ
15 Wed	5:29	8.9	133	ü
16 Thu	6:27	7.7	7:18	ដ
17 Fri 3	7:27	6.6	8:04	13
18 Sert	8:40	5.6	1:11	H
19 Sun	10:11	5.1	1:55	1.7
20 Mon	11:39	5.0	10:51	i.i
21 700	• • • •		12:49	1.1
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23 11	0:36	8.5	1245	3.4
24 Fri	1:21	8.3 8.7	2:22	L.
25 Ser &	2:01	8.9	2:59 2:29	4.5
26 Sun		9.0		1.4
27 Mon	3:14	9.0	4:38	1.1 7.1
28 Tue	3:49	8 .7	4:14	<u>;;</u>
29 Wed	4:21	ڌة		7.A
30 Thu		7.8		7.3
31 Fri	5:37	7.1		13

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1 Wed			12:04	4.1
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3 Fri	1:07	2.7	1:13	1.0
4 Sot C	2:09	2.4	1:52	1.4
5 Sun	3:18	1.9	2540	2.2 2.7
6 Mon	4:29 5:36	1.1	3:38 4:45	3.0
7 Tue 8 Wed	5:36 6:34	-0.2	3:47	11
9 Thu	7:27	-1.6	6:50	ü
10 Fri	8:19	.2.3	7:48	1.4
11 Set 0	7:05	-2.7	8143	2.1
12 Sun	9:51	-2.8	9:39	1.7
13 Mon	10:37	-2.5	10:31	1.3
14 Tue	11:19	-1.9	11:26	1.4
15 Wed			12:01	-1.0
16 Thu	0:27	1.4	12:43	0.0
17 Fri 🤰	1:33	1.3	1:25	1.0
18 Sart	2:43	1.3	2:10	2.4
19 Sun	3:58	1.1	3196	2.8
20 Mon	5:14 6:16	0.7	4:09 3:18	3.3 3.4
21 Tue 22 Wed	7:08	-0.2	9: 18 9:30	ü
22 Thu	7:50	-0.5	7:09	ij
24 Fri	8:25	0.8	7:34	3.3
25 Set 6	7.00	-1.0	1.33	2.7
26 Sun	9:30	-1.1	1:01	2.3
27 Mon	10:01	-1.1	4147	1.3
28 Tue	10:28	-0.9	10:23	2.1
29 Wed	10:54	-0.5	11:03	2.0
30 Thu	11:24	0.0	11145	1.4

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	13 Sun	6:40	6.0	₩17	8.2
	14 Mon	3 7:46	5.2	7167	7.4
	15 Tue	9:23	4.8	2:15	7.1
	16 Wed	11:09	5.0	7:43	4.9
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	22 Tue	2.04	8.3	2:34	4.1
	23 Wed	6 2:39	1.3	2:39	1.3
	24 Thu	3:15	8.2	3:34	8.8
	25 Fri	3:51	7.8	3144	9.0
	26 Ser	4:20	7.4	4:17	9.0
	27 Sun	5:10	6.7	4:44	4.9
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	29 Tue	7:04	5.4	9:22 7:24	7.7
	30 Wed	e 8:37	5.0	7524	7.4

FOOLA	SEPTEMB	PLIGHT TIME
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Depte	ka t	h.m. A
1 Tue 2 Wed 3 Thu 4 Fri 5 Son 6 Sun 7 Mon 8 Tue 9 Wed 10 Thu 11 Fri 12 Son 13 Sun 13 Sun 13 Sun 13 Sun 13 Fri 14 Mon 15 Tue 23 Wed 23 Wed 25 Fri 26 Sun 27 Wed 27 Wed 28 Fri 28 Sun 29 Sun 29 Sun 29 Sun 29 Sun 29 Sun 20 S	© 2:05 0.8 3:35 0.7 4:58 0.2 4:58 0.2 4:58 -0.5 6:59 -1.1 6:50 -1.4 9:50 -1.4 9:55 -0.9 10:11 -0.2 10:46 0.7 2:33 1.2 4:01 1.3 5:20 1.1 7:51 -0.1 8:20 -1.1 7:51 -0.1	2:17 1.

AUGUST KODIAR DISTRICT—DAYLIGHT TIME HIGH A.M. F.M. Dere h.m. F.M. k.m. N. 1 Set 6:19 8.4 6:58 7:98 8.8 3 Mon 8:36 4.9 8:52 8.1 4 Tue 10:21 4.7 941 8.8 5 Wed 11:57 5.0 18:58 8.8 6 Thu 12:59 8.7 7 Fri 0:03 9.4 1:36 8.8 8 Set 1:03 10:0 2:33 7.1 9 Sun © 1:58 10:4 8:12 7.7
NEGH A.M. P.M.
Dose h.m. ft. h.m. ft. 13 ft. 12 ft. 12 ft. 14 ft. 15 ft.
1 Set 6:19 6.4 6:54 7.9 2 Sun 6 7:19 5.4 7:36 8.8 3 Mon 8:36 4.9 8:52 8.1 4 Tue 10:21 4.7 941 8.4 5 Wed 11:57 5.0 16:54 8.8 6 Thu 12:59 8.7 7 Fri 0:03 9.4 1:56 8.4 8 Set 1:03 10.0 2:33 7.1 9 Sun © 1:58 10.4 8.12 7.7
25un G 7:19 5.6 7:16 8.6 3 Mon 8:36 4.9 8:32 8.1 4 Tue 10:21 4.7 9:13 8.4 5 Wed 11:57 5.0 18:14 8.8 6 Thu
2 5un © 7:19 5.4 7:34 8.6 3 Mod 1:21 4.7 9:11 8.4 3 Wed 11:21 4.7 9:11 8.4 5 Wed 11:37 5.0 38:34 8.8 6 Thu 12:59 8.7 7 Fri 0:03 9.4 1:56 8.4 8 Set 1:03 10.0 2:33 7.1 9 Sun © 1:58 10.4 8.12 7.7
3 Mon 8:36 4.9 8:32 8.1 4 Tue 10:21 4.7 941 8.4 5 Wed 11:57 5.0 18:54 8.8 5 Thu 12:58 8.7 7 Fri 0:02 9.4 1:36 8.4 8 Set 1:03 10.0 2:33 7.1 9 Sun © 1:58 10.4 8.12 7.7
4 Twe 10:21 4.7 941 8.4 5 Wed 11:57 5.0 16:54 8.8 6 Thu 12:59 8.7 7 Fri 0:00 9.4 12:56 8.4 8 Set 1:03 10.0 253 7.1 9 Sun © 1:58 10.4 212 7.7
7 Fri 0-03 9.4 1:56 8.7 7 Fri 0-03 9.4 1:56 8.4 85et 1:03 10.0 2:33 7.1 7 Sun © 1:58 10.4 2:12 7.7
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Set 1:03 10.0 2:33 7.7 7 Sun © 1:58 10.4 2:12 7.7
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12 Wed 4:26 7.4 5:56 8.9 13 Thu 5:16 8.5 5:48 8.9
14 Fri 6:06 7.3 608 8.7
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17 Mon 9:48 4.8 9:86 7.6
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20 Thu 1:24 1.7
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22 Set 1:09 8.4 2:29 6.4
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24 Mon @ 2:23 8.8 3:36 7.4
25 Tue 2:58 8.8 3:45 7.8
26 Wed 3:30 8.6 4:69 8.8 27 Thu 4:05 8.2 4:34 8.8
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29 Sot 5:19 7.0 5:31 8.4 30 Sun 4:03 4.2 4.40 8.3
30 Sun 6:00 6.2 6:00 8.3

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	AUGUST							
	KODIAK DISTRICT—DAYLIGHT TIME							
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	Oure	à.m.	Ħ,	h.m.	11.			
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	2 Sun 3 Mag	G 1:30	1.6	12:57	1.9			
•	4 Tue	2:36 3:55	0.9	1:44 2:49	2.4			
٠]	5 Wed	5:14	0.2	4:15	14			
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1	# Seri	7:16 8:04	-1.5 -2.1	6:45 7:45	2.4			
1	9 Sun	0 1.7	2.4	2:14	13			
- 1	10 Mon	9:31	-2.3	9:39	4.7			
- 1	11 Tue 12 Wed	10:10 10:47	-1.7	10:18	9.3			
	13 Thu		21.	11:10	6.2			
	14 Fri	0:02	6.5	12:01	0.7			
- 1	15 Ser	0:57	0.6	12:28	1.7			
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1	16 Tue	4:45	1.1	2:13 2:21	14 13			
- 1	19 Wed	5:54	0.7	5184	1.4			
1	20 Thu	6:47	0.3	6:10	3.4			
	21 Fri 22 Ser		-0.1 -0.5	7100	3.1			
- 1	23 Sun		0.3 0.7	7:40 8:19	<u> </u>			
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- (25 Tue 25 Wed		0.7	9:27	ij			
- 1	27 Thu	9:52 · 10:17	0.5 0.0	10:02	0.9			
- 1	28 Fri		0.5	11:14	8.7			
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KORIAK YINES						
OCTOBER KODIAK DISTRICT—DAYLIGHT TIME						
HIGH A.M. P.M.						
Doto h.m. ft. h.m. ft.						
1 Thu	10:17	5.0	9:11	7.7		
2 Fri 3 Sot	11:29	5.9	10:00	7.9		
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4 Sun			12:54	<i>ii</i>		
5 Mon	0.52	8.7	1:33	8.4		
6 Tue	1:45	8.9	2:24	1.1		
a Thu	2.16	13	2.14	9.9		
9 Fri	4:02	6.0	2167	1.3		
10 Set	4:44	7.3	4:36	1.3		
11 Sun 12 Mon	5:29 6:21	6.6 5.9	4.54	H		
13 Tue	7:24	5.3	6:19	7.4		
14 Wed 3	8:53	5.1	7:34	ü		
15 Thu	10:20	5.2	8:34	4.4		
16 Fri 17 Set	11:22	5.7	10:33	ü		
18 Sun	11:37		11:24	LI LI		
19 Mon	0:18	7.1	124	7.4		
20 Tue	1:03	7.4	1:20	8.2		
21 Wed	1:40	7.4	1>46	L.		
22 Thu (2:20 3:00	-7.7 7.4	2:14 2:41	13		
24 Set	3:41	7.4	2:14	ij		
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25 Sun	3:23	7.0	2:34	9.4		
26 Mon 27 Tue	4:08 5:03	6.6	\$136 4:14	M		
28 Wed	6:09	5.7	kii	ij		
29 Thu 6	7:32	5.7	6429	7.7		
30 Fri	8:46	6.1	8:63	7.2		
31 Sat	9:50	6.0	9:31	7.2		

EORIAK TIBES						
OCTOBER KODIAK DISTRICT—DAYLIGHT TIME						
LOW	A.M.	P.M.				
Dete	A.m. R.					
1 Thu 2 Fri 3 Seri 4 Sun 3 Mod 6 Tue 7 Wed 8 Thu 9 Fri 10 Seri 11 Sun 13 Twe 13 Twe 13 Twe 14 Wed 15 Thu 16 Fri 18 Sun 18 Sun 18 Sun 18 Sun 18 Sun 19 Tri 19 Mon 20 Twe 21 Hud 22 Tri 24 Seri 25 Sun 25 Sun 26 Mon 27 Tue 27 Tue 27 Tue 27 Tue 27 Tue 27 Tue	3:15 0.5 4:25 0.2 5:40 -0.2 5:40 -0.2 5:40 -0.2 7:53 -0.5 8:28 -0.1 9:00 0.4 9:00 1.0 10:10 1.0 10:10 1.0 10:10 1.0 11:18 3.0 11:18 3.0 11:18 1.0 3:00 1.3 4:19 1.3 5:13 1.2 5:58 1.0 8:34 1.2 9:34 1.2 9:34 1.2 9:34 1.2 9:34 1.2 9:34 1.3 9:34 1.3 9:34 -0.1 1:35 0.2 1:35 0.3 1:35 0.4 1:36 1.0 8:34 1.2 9:37 1.3 1:36 0.3 1:36 0.3	201 3.0 407 3.1 3.0 407 3.1 3.0 408 3.1 7.2 40 40.1 1.1 7.2 41 1107 -1.0 110				

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CORDOVA DISTRICT		-	TABLE	
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MAY HUSHAGAK DISTRICTDAYLIGHT TIME	
HIGH A.M. P.M.	-
Date h.m. ft. h.m. ft	ī.
1 Fri 7:15 20.6 6c27 13.2 2 5c1 8:00 20.4 7:23 13.4 35un 8:42 20.1 8:00 12.4 4 Mon 9:25 19.8 8:53 12.4 5 Tue 6 Wed 6 10:42 19.0 19.33 13.7 Thu 11:18 18.5 11:28 13.7 Thu 11:18 18.5 11:28 13.7 Thu 11:18 18.5 11:28 13.7 10:5un 12:7 18.0 19.3 14.5 12:20 13.5 11:0 16.3 13.4 12 10.5 12.5 12.5 12.6 12.7 12.7 12.5 12.5 12.5 12.5 12.5 12.5 12.5 12.5	

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LOW	- 4	M.	₽.	M .	
Dene	h.m.	ħ.	N.m.	ħ	
1 Fri	0:13	0.0	1:37	6.2	
2 Set	0:59	0.4	2:19	ü	
3 Sun	1:44	0.9	3:05	1.4	
4 Mon	2:27	1.4	3×17	4.3	
5 Tue	3:12	1.9	4:29		
7 Thu	3:57 4:46	2.5	3:11	3.4	
& Fri	5:35	3.2 4.0	3:53 4:25	4.9	
9 Sa1	6:27	4.8	7:13	41	
10 Sun	7:21	5.6	7:53	11	
11 Mon	8:18	6.3	8:31		
12 Tue	9:16	6.8	9:12	43	
13 Wed C		7.0	9:57	-1.3	
14 Thu	11:10	7.0	10:44	-2.1	
15 Fri 15 "			12:43	4.9	
15 16 Sat	• • • •	• • •	11:33	-1.7	
17 Sun	0:30	-2.9	12:58	4.5	
18 Mon	1:25	·2.9	1:51	3.5	
19 Tue	2:21	-2.1	2545 3:39	1.0	
20 Wed 1	3:20	1.1	431	17	
21 Thu	4:22	6.0	1:23	14	
22 Fri	5:23	1.9	4:13	13	
23 Set	6:27	3.4	7:06	43	
24 Sun	7:30	4.8	7:55	·iã	
25 Mon	1:35	5.8		-1.3	
26 Tue 27 Wed 6	9:37 10:35	6.5	1:30	1.4	
28 Thu	10:35	6.9		-1.0	
29 Fri	11:31	1.1	10:59 · 12:22	44	
29 -	• • • •	•••	11:42	<i>7.</i>]	
30 Sat			1:12	7.7	
31 Sun	0:24	0.7	1:54	7.0	

	MUSIKADAK TIPES						
	APRIL						
NUSHAGAK DISTRICT-STANDARD TIME							
HIGH	A.M.	P.M.					
Dete	h.m. ft.	h.m. H.					
1 Wed	5:42 19.8	5:30 14.0					
2 Thu	6:34 20.0	6:16 13.2					
3 Fri	7:30 20.1	7:01 14.4					
4 Set	8:15 19.9	7:44 14.1					
₩	YLIGHT TIME	esecs					
5 Sun	10:01 19.6	9:32 13.9					
6 Mon (
& Wed	11:31 18.8	11:43 13.3					
1 1	••••	11:54 14.3					
9 Thu		1255 16.5					
10 60	0:45 14.2	143 17.4					
11 Set	1:40 14.7	2:11 17.1					
12 Sun	2:33 15.4	2:50 16.5					
13 Mon	3:28 16.3	2:34 13.9					
14 Tue	0 4:21 17.5	4:43 13.4					
15 Wed	5:14 18.7	445 15.0					
16 Thu	6:05 19.8	\$27 14.8 \$17 14.7					
17 Fri	6:55 20.8	617 14.7					
18 Sat	7:47 21.6	7:96 14.8					
19 Sun	9:41 22.0	8:04 15.1					
	9:32 22.2	9106 13.4					
21 Tue	10:24 22.0	10:10 15.8					
22 Wed	11:18 21.7	11:17 14.3					
23 Thu 24 Fri	W42	12:01 21.1					
25 Ser	0:26 16.8	1#2 36.3					
26 Sun	1:34 17.5	151 H.J 541 H.1					
27 Mon	3:43 19.2	241 14.1					
26 Tue	3:43 17.2 4:42 17.9	4:17 14.4					
27 Wed	5:37 20.4	324 14.5					
30 Thu	6:28 20.6	13.5					
1179							

	WEHAG!	K TIE	B		
NUSHAGAI	API		NDARD TI	ME.	
LOW A.M. P.M.					
Derte	h.m.	ħ.	A.m.	Ħ.	
1 Wed 2 Thu	11:49	4.6	11:51 12:44	1.4	
3 Fri 4 Sot	0:37 1:23	0.1 0.4	1:39	5.4 5.9	
5 Sun	3:09	0.8	4:15	6.2	
6 Mon	3:55	1.1	3:02		
7 Tue	4:43	1.5	3:47		
8 Wed	5:28 4:17	1.9	6:29	4.1	
10 Fri	7:06	3.1	7:33 7:47	H	
11 Sat	7:55	3.8	8:39	14	
12 Sun	8:47	4.5	4:18	3.4	
13 Mon	9:39	5.2	9:54	2.4	
14 Tue (10:36	5.7 6.1	10:38 11:30	14	
16 Thu	11.20	•.,	12:24	ij	
17 Fri	0:05	4.0	1:17	4.3	
18 Scrt	0:54	-1.3	2:09	i.i	
19 Sun	1:45	-1.8	3:01	1.1	
	2:40	-2.0	3:54	11	
2) Tue 22 Wed	3:36 4:35	-1.8 -1.2	4:44 3:42	17	
23 Thu	5:37	0.2	4:34	24	
24 Fri	4:39	1.1	7:29	13	
25 Sat	7:41	2.4	8:18	i. 3	
26 Sun	1:44	3.6	4:41	4.2	
27 Mon	9:45	4.6	7:55	4.4	
28 Tue (10:46 11:45	5.3 5.8	11:30	7.	
30 Thu	11.45	7.0	12:39	73	

NUSHAGAK	JUI					
HUSHAGAK	DISTRIC					
		1-041				
HIGH A.M. P.M.						
Dete	h.m.	h.	N.M.	Ħ.		
1 Mon	0:11	20.1	7:30	12.1		
2 Tue	8:47	19.7	2:30	12.2		
3 Wed	7:20	19.4	9: XI	12.3		
4 Thu C	. 1:54	19.0	10:06	14.1		
5 Fri	10:27	18.5	11:02	14.8		
6 Sat 7 Sun	11:02	17.9 17.2	11:56	15.2		
/ SUN	11:36 0:54	16.6	12:13	4.4		
9 Tue	1:49	18.1	12:44	14.1		
10 Wed	2:42	19.6	12.35	13.4		
II The G	2.37	21.0	2:31	15.3		
12 Fri	4:30	22.1	227	ü		
13 Set	5:24	22.9	4:24	11.7		
14 Sun	6:14	27.4	1430	11.3		
15 Mon	7:07	23.6	447	13.4		
16 Tue	7:57	23.4	7=47	11.7		
17 Wed	8:49	22.9	1500	14.2		
18 Thu 3	9:38	22.2	10:11	14.4		
19 Fri	10:26	21.1	11:20	17.4		
20 Sa1	11:14	19.8				
21 Sun	0:26	18.5	12:03	14.5		
22 Mon	1:31	19.4	12:50	17.1		
23 Tue	2:30	20.0	321	13.4		
24 Wed	3:26	20.4	7:27	14.4		
25 Thu	4:15	20.5	3:13	11.7		
26 Fri •	5.03	20.5	3:57	13.0		
27 Sat	5:48	20.3	4566	12.5		
28 Sun	6:26	20.1	143	12.1		
30 Tue	7:01	19.5	K 70	12.4		
- W 101	7:37	17.5	7;44	12.4		

JUNE NUSHAGAK DISTRICT—DAYLIGHT TIME						
LOW	A.	M	₽.	M.		
Date	h.m. H. h.m. H.					
1 Mon	1:06	1.2	2:34	4.7		
2 Tue	1:47	1.9	\$:17	6.3		
3 Wed	2:33	2.6	1:57	5.4		
4 Thu &	3:18	3.4	4:34	4.7		
5 Fri 6 Set	4:08 4:59	4.3	3:14	3.7		
7 Sun	5:55	5.3 6.2	3:51 4:30	1.3		
\$ Mon	6:50	7.0	7:41	1.3		
9 Tue	7:50	7.3	7:51	.13		
10 Wed	8:47	7.8	8:34	.3.3		
II The o	9:46	7.8	9:27	3.3		
12 Fri -	10:43	7.6	10:14	-1.1		
13 Sot	11:40	7.0	11:32	3.1		
14 Sun			12:33	• 3		
15 Mon	0:08	3.6	1:29	1.1		
16 Tue	1:07	-2.8	2:34	3.7		
17 Wed	2:06	-1.5	2:16	2.2		
19 Fri	3:06 4:07	0.2	4:01	9.7		
20 Seri	5:13	2.0 3.7	5:01 5:52	جن		
21 Sun	6:16	5.2	3:37 4:42	·1.5		
22 Mon	7:19	63	7:21	-2.1 -2.1		
20 7	8:19	7.0	2:17	.1.0		
24 Wed	9.19	7.3	9-83	-1.4		
25 Thu	10:17	7.7	1:44	ند		
26 Fri •	11:09	7.8	10:30	4.3		
27 Set	11:58	7.8	11:12	1.4		
28 Sun			12:43	7.4		
28 7	••••	• • •	11:54	1.0		
27 Mon	W42	***	1:25	7.2		
30 Tue	0:36	1.7	2:04	4.7		

Manager 1999				MUSHAGAE TERS						
JULY HUSHAGAK DISTRICTDAYLIGHT TIME				JULY HUSHAGAK DISTRICT -DAYLIGHT TIME						
HIGH	A.M.	7.4	<u> </u>							
Date	h.m. 11.	Am.	-		A.M.					
				Dete	k.m.	h.	h.m.	ħ		
1 Wed	8:09 19.2		13.7	1 Wed	1:18	2.5	2142	3.1		
2 Thu	8:37 18.9		12.1	2 Thu	2-00	3.4	3:18	5.3		
3 Fri	9:09 18.4		13.4	3 Fri	2:49	4.4	2:55	1.3		
4 501 (15.4	4 Set (T	3:35	5.4	4:32	2.4		
5 Sun	10:15 17.4	11:33	14.4	5 Sun	4:30	6.3	5:01	13		
6 Mon	10:51 16.9			6 Mon	5:26	7.1	3:46	4.1		
7 Tue	0:27 17.8			7 Tue	6:23	7.7	4:31	-1.4		
7 -	11:29 16.5	2227	• • • •	\$ Wed	7:21	8.1	7:17	-2.4		
8 Wed	1:21 19.3		14.3	9 Thu	8:21	8.2	8:06	-3.4		
9 Thu	2:16 20.5		16.1	10 Fri	9:17	7.9	9:81	4.1		
10 Fri	3:12 21.6		14.8	11 Set 🙃	10:15	7.4	9:55	4.1		
11 Sot @	4:04 22.4		14.4	12 Sun	11:12	6.5	10:53	4.1		
12 Sun	4:58 22.9		14.4	13 Mon			12:07	1.2		
13 Mon	5:50 23.1		14.2	13"		,	11:52	4.4		
14 Tue	6:40 23.0		14.4	14 Tue			1:01	2.7		
15 Wed	7:32 22.6		4.4	15 Wed	0:51	-1.7	1:59	1.1		
16 Thu	8:21 21.9		17.4	16 Thu	1:53	0.0	2:51	1.4		
17 Fri 3	9:11 21.0		18.1	17 Fri	2:52	1.7	2:43	4.7		
18 Sat	9:57 19.8	11:00	u.s	18 Sat	3:56	3.4	4:15	-14		
19 Sun	10:46 18.6		•••	19 Sun	4:57	4.9	5:25	.2.4		
50 Wou	0:13 19.4		• • •	20 Mon	6:00	6.0	4:14	-2.0		
20 "	11:35 17.3		**:	21 Tue	6:59	4.8	7:03	.13		
21 Tue	1:12 19.8		14.5	22 Wed	7:59	7.4	7:44	.13		
22 Wed	2:08 19.9		13.3	23 Thu	8:55	7.7	8:25	43		
23 Thu	2:59 19.9		H.J	24 Fri	9:48	7.9	7:20	4.3		
24 Fri	3:49 19.8		13.7	25 Scrt 🌰	10:38	8.0	10:04	1.4		
25 Sat (4:34 19.6		13.5		11:22	7.8	10:44	1.3		
26 Sun	5:13 19.4		12.5	27 Mon			12:04	7.4		
27 Mon	5:51 19.1		12.4	27 "			11:28	13		
28 Tue	6:25 18.8		12.4	28 Tue			12:44	4.9		
29 Wed	6:57 18.5		12.9	29 Wed	0:11	2.6	1:23	āi		
30 Thu	7:25 18.1		13.5	30 Thu	0:53	3.5	2:00	5.2		
31 Fri	7:56 17.7	8:27	HJ 🗎	31 Fri	1:41	4.5	2:37	4.1		

SEPTEMBER NUSHAGAK DISTRICT DATUGHT TIME					HUNK AGAIL TIMES					
					SEPTEMBER					
HIGH	A #		,		LOW		2.16			
Date	N.M.	· · ·	h.m.	-	Date	A.M.		A.a. N		
1 Tue 5 2 Wed 3 Thu 4 Fri 4 5 Set 6 Sun 7 Mon 6 8 Tue 9 Wed 10 Thu 11 Fri 12 Sat 13 Sun 14 Mon 1 15 Tue	9:04 9:53 10:45 0:26 11:42 1:22 2:14 3:09 3:59 4:51 5:40 6:30 7:21 8:11	15.7 15.9 16.1 20.6 16.4 20.9 21.0 20.9	19:41 11:33 1:45 1:49 2:54 4:39 3:16 6:23 7:26 8:25 9:21 10:10	19.A 20.1 20.1 17.1 17.3 18.1 18.7 19.A 20.B 20.B 20.A 20.A	1 Tue & 2 Wed 3 Thu 4 Fri 5 Sat 6 Sun 7 Mon & Tue 9 Wed 10 Thu 11 Fri 12 Sat 13 Sun 114 Mon 3 15 Tue 16 Wed	3:56 4:49 5:43 6:35 7:32 8:26 9:22 10:16 11:12 0:32 1:33 2:32 3:28 4:22 5:15	7.0 7.1 7.1 6.8 6.2 5.3 4.1 2.7 1.4 2.5 3.5 4.3 5.5 6.0	3:33 4:12 5:25 6:26 7:29 8:26 9:26 9:26 11:22 12:54 12:54 2:26 4:17 2:26 3:26	411111111111111111111111111111111111111	
15 Tue 16 Wed 17 Thu 18 Fri 19 Sot 20 Sun 21 Mon 22 Tue 23 Wed 24 Thu 25 Fri 26 Sot 27 Sun 29 Tue 30 Wed	10:40 11:29 0:46 1:35 2:17 2:56 3:33 4:08 4:43 5:18 5:51 6:29 7:08 7:53	15.0 14.6 19.0 18.5 18.0 17.6 17.0 16.5 15.9 15.4 15.0 14.7	11:09 11:09 12:15 1:65 1:54 2:47 3:39 4:31 5:20 6:09 6:35 7:35 8:35 9:24 10:16	19.3 14.3 14.3 14.4 18.4 18.4 19.7 19.8 19.8 19.8	17 Thu 18 Fri 19 Sat 20 Sun 21 Mon 22 Tue 23 Wed 24 Thu 25 Fri 26 Sat 27 Sun 28 Mon 29 Tue 30 Wed 6	4:04 4:55 7:41 8:26 9:08 9:52 11:07 11:46 0:24 1:14 2:03 2:53	6.3 6.5 6.3 5.8 5.3 4.6 3.8 2.9 5.9 6.3 6.6 6.7	3:54 4:63 7:29 8:18 9:86 9:32 10:43 11:43 12:25 1:64 1:67 2:33 3:25	11111111111111111111111111111111111111	

MUSHAGAK TIDES									
AUGUST									
HIGH A.M. P.M.									
Date	h.m.	fi.	h.m.	N.	-				
1 Sat	8:27	17.2	9:19	35.4	ī				
	€ 8:57	16.9	10:12	14.4	- 1				
			11:04	17.4					
			11:59	19.4	ı				
					•				
					1				
					ı				
	0 3:30								
					1				
12 W-4					ı				
	7:01	20.0			- 1				
					- 1				
					ŧ				
					- 1				
					- 1				
18 Tue	11:09	16.2			- 1				
19 Wed	0:40	197	• • • • •	• • •	- 1				
19 -	11:56			• • • •	1				
20 Thu	1:32		12:43	14.1	- 1				
21 Fri	2:23			H.	- 1				
22 Sqt	3:09	18.9		11.1	- 1				
23 Sun	3:48	10.5	3:44	w	ı.				
	4:29	18.2	3:54	11.4	- 1				
	5:06	17.8	4:43	11.7	- [
	5:38	17.4	5:35	14.1	- 1				
	6:10	17.0	6:27	34.7					
	6:39	16.5	7:16	13.5	1				
			1:45	14.5	U				
			4:54	37.4	_				
	1 Sar 2 San 3 Mon 3 Mon 3 Mon 4 Tue 5 Wed 6 Thu 6 Thu 8 Sun 11 Tue 12 Wed 13 Thu 14 Fri 15 Sar 17 Mon 18 Tue 19 Wed 19 Yed 19 Yed 19 Yed 19 Yed 21 Fri 22 Sar 12 Sar 22 Sa	AUG MUSHAGAK DISTRIK NIGH A. Daire h.m. 1 Sari 8:57 3 Moon 9:36 4 Tue 10:15 5 Wed 11:00 6 Thu 0:52 6 - 11:52 7 Fri 1:51 8 Sari 2:43 9 Sun 0:338 10 Moon 3:38 11 Tue 5:22 12 Wed 6:13 13 Thu 7:01 11 Tue 5:22 12 Wed 6:13 13 Thu 7:01 14 Fri 7:51 15 Sari 8:42 12 Wed 6:13 13 Thu 7:01 11 Tue 5:22 12 Wed 6:13 13 Thu 7:01 11 Tue 5:22 12 Wed 6:13 13 Thu 7:01 13 Tue 11:02 12 Wed 11:09 13 Tue 11:02 22 Sari 2:23 22 Sari 2:23 22 Sari 2:23 23 Sari 3:09 22 Thu 1:32 23 Sari 3:09 24 Moon 4:29 25 Tue 5:06 6:09 26 Wed 5:38 27 Thu 6:10 28 Fri 6:39 29 Sart 7:11	AUGUST MUSHAGAR DSTRICT—DA NGCH Darie h.m. ft. 1 Sort 8:27 17.2 2 Sun G 8:57 16.9 3 Mon 9:36 16.6 4 Tue 10:15 16.4 5 Wed 11:00 16.4 5 Wed 11:00 16.4 6 Thu 0:52 20.1 6 11:52 16.4 7 Fri 1:51 20.9 8 Sort 2:43 21.5 9 Sun 0:38 21.5 9 Sun 0:38 21.5 11 Tue 5:22 21.1 12 Wed 6:13 21.5 13 Thu 7:01 20.9 11 Sort 8:22 21.5 13 Thu 7:01 20.9 11 Sort 9:32 21.5 13 Thu 7:01 20.9 11 Sort 9:31 18.0 15 Sort 9:31 18.0 17 Mon 10:20 17.0 18 Tue 11:09 16.2 19 Wed 11:09 16.2 19 Wed 11:09 16.2 19 Tue 2:25 Tue 2:25 Sort 3:09 18.9 22 Sort 3:09 18.9 22 Sort 3:09 18.9 23 Mon 4:29 18.2 25 Tue 5:06 17.8 6:09 16.5 29 Sort 7:11 16.1 6:15 18.5	AUGUST MUSHAGAR DISTRICT—DAYDGHT 7 NIGH A.M. P. Dele h.m. ft. h.m. 1 Sort 8:87 16-9 16-12 2 Sun G 8:97 16-9 16-12 3 Mon 9:36 16-6 11:34 4 Tue 10:15 16-4 11:39 5 Wed 11:00 16-4 6 " 11:52 16-4 11:39 5 Wed 11:00 16-4 6 Tu 0:52 20.1 7 Fri 1:51 20-9 12:51 8 Sort 2:43 21.5 12:51 8 Sort 2:43 21.5 12:51 13 Thu 0:52 20.1 22:9 10 Mon 0:52 20.1 32:51 13 Thu 7:01 20-9 7:37 11 Tue 5:22 21:9 3:16 13 Thu 7:01 20-9 7:37 14 Fri 7:51 20.0 3:31 15 Sort 8:42 19.0 3:46 16 Sun 9:31 18.0 19:51 17 Mon 10:20 17:0 11:44 18 Tue 11:09 16-2 19 Wed 0:40 19:7 19 " 11:56 15-4 20 Thu 1:22 19-5 12:54 21 Fri 22:31-2 21:7 22 Sort 3:09 18-9 2:18 23 Sort 3:09 18-9 2:18 24 Mon 0:42 71 82-3 3:48 24 Mon 0:42 71 82-3 3:48 25 Tue 5:06 17:8 4:53 27 Thu 6:10 17:0 6:27 28 Fri 6:09 16-5 7:16 29 Sort 7:11 16-1 8:35 30 Sun 7:46 15-8 8:34	AUGUST MUSHAGAR DISTRICT — DAYLIGHT TIME NIGH A.M. P.M. Date h.m. h. h.m. N. 1 Sort 8:27 17.2 9:19 15.A 2 Sorn 6 8:57 16.9 16:12 16.A 3 Mon 9:36 16.6 11:84 17.4 5 Wed 10:15 16.4 11:29 19.8 5 Wed 11:00 16.4 11:29 19.8 5 Wed 11:00 16.4 11:29 19.8 5 Wed 11:00 16.4 11:29 19.8 10 Mon 0 2:38 2:19 2:51 14.3 8 Sort 2:43 21.5 1:51 14.4 9 Sorn 0 2:38 2:19 2:51 14.3 10 Mon 0 4:30 22.0 4:56 17.9 11 Tue 5:22 2:19 2:16 17.7 12 Wed 6:13 21.5 6:27 17.8 13 Thu 7:01 20.9 7:37 14.4 14 Fr 7:31 20.0 8:41 19.8 15 Sort 8:42 19.0 9:46 19.3 15 Sort 8:42 19.0 9:46 19.3 17 Mon 10:20 17.0 11:34 19.8 18 Tue 11:09 16.2				

AUGUST MUSHAGAK DISTRICT—DAYLIGHT TIME								
LOW	A.A	4.	₽.	W.				
Dete	h.m.	Ħ.	h.m.	4				
1 Sat	2:27	5.4	2:10	2.0				
2 Sun (6.2	2:48	1.4				
3 Mon	4:09	6.9	4:28	9.1				
4 Tue 5 Wed	5:06	7.4	5:14	-14				
6 Thu	6:00	7.7 7.8	6:00	-2				
7 Fri	7:53	7.6	6:32 7:44	3.1				
8 Set	8:51	7.1	8:43	3.7				
9 Sun C		63	1:42	33				
10 Mon	10:43	4.9	10:41	.22				
11 Tue	11:41	3.5	11:40	.13				
12 Wed			12:34	2.				
13 Thu	0:40	0.3	1:28	0.4				
14 Fri	1:42	1.6	£18	4.5				
15 Sot	2:42	3.2	3:11	-1.1				
16 Sun 3	3:43	4.4	4:01	-1.5				
17 Mon 18 Tue	4:43	5.4	4:52	-1.5				
19 Wed	5:40	6.1	3043	-1-3				
20 Thu	6:35 7:27	6.7 7.1	k:29	4.7				
21 Fri	8:20	7.4	7:19	4.3				
22 Sat	9:09	73	\$:#5 E:#4	1.1				
23 540	9:54	73	1:33	14				
24 Mon	10:39	7.0	10:21	ä				
25 Tue	11:20	6.4	11:41	ñ				
26 Wed	11:59	5.7	17:44	ï				
27 Thu			12:35	ü				
28 Fri	0:37	4.8	1:13	3.9				
29 Scrt	1:27	5.5	1:44	2.4				
30 Sun	2:14	6.1	2:25	1.7				
JI MON	3:07	6.6	2:97	4.4				

NUSHAGA	OCTO K DISTRICT			'ME				
HIGH A.M. P.M.								
Dese	h.m.	ħ.	h.m.	H				
1 Thu	9:38 1		11:06	21.4				
2 Fri		5.8						
3 Sot		1.0						
3 "		6.3						
4 Sun		0.8	12:49	16.				
5 Mon		0.3	1:54	17.4				
67ue 7Wad 6	2:35 I 3:27 I	9.7	3:47	14.				
87hu		8.7 8.0	4:13	19.4				
9 Fri		7.0	3:16 4:15	2.				
10 Set		6.1	7:11	7 .				
11 Sun		5.4	2:04	n				
12 Man		4.7	1:57	-				
13 Tue		4.3	141	3				
14 Wed 1		4.0	10:21	17.				
15 Thu		3.9	11:14	19.				
16 Fri		3.4	11:57	14.7				
17 Set		3.9						
18 Sun		8.1	12540	14.1				
19 Mon		7.5	1:35	14.7				
20 Tue	1:54 1	6.9	2:25	15.4				
21 Wed		6.2	2:20	14.				
22 Thu @	3:08 1	5.5	4:12	17.3				
23 Fri	3:44 1	4.9	5:01	14.4				
24 Sat	4:22 1	4.4	5:44	19.3				
	THOUT T	1	-					
25 Sun		4.1	5:25	26.4				
26 Mon		4.0	6:34	27.1				
27 Tue	5:39 1	4.1	7:12	21.4				
28 Wed		4.4	8:43	27.1				
29 Thu 6	7:33 1	4.8	8:54	27.5				
30 Fri		5.2	9545	77.4				
31 Sat	9:40 1).U	10:35	<u>71.1</u>				

NUSHAGAK DISTRCT—DAYUGHT TIME 10W A.M. F.M. F.M. Dees h.m. ft. h.m. ft. 1 Thu 4:35 6.3 4:29 -1.4 2 Fri 5:27 5.8 3:13 -1.4 3 Sott 6:19 5.0 6:13 -4.9 5 Mon 8:06 2.7 8:19 8.0 6 Tue 8:59 1.4 9:21 2.8 7 Wed Ф 9:51 0.3 19:24 3.8 9 Fri 11:33 -1.0 10 Sott 0.26 4.5 12:22 -1.3 11 Sun 1:22 4.9 1:12 -4.9 112 Mon 2:18 5.2 2:61 -4.1 13 Tue 2:18 5.2 2:61 -4.1 13 Tue 3:10 5.8 4:34 1.1 16 Fri 5:33 5.8 4:34 1.4 16 Fri 5:33 5.8 3:11 2.8 18 Sun 7:01 5.1 6:33 3.4 16 Fri 5:33 5.8 3:11 2.8 18 Sun 7:01 5.1 6:33 3.4 19 Mon 7:34 4.6 7:12 4.7 11 Sott 6:16 5.5 6:49 1.2 18 Sun 7:01 5.1 6:33 3.4 19 Mon 7:34 4.6 7:12 4.7 21 Tue 8:22 3.9 8:23 5.2 21 Tue 8:22 3.9 8:23 5.2 21 Tue 9:40 2.3 19:22 4.4 20 Tue 8:22 3.9 8:23 5.2 21 Tue 9:40 2.3 19:22 4.4 20 Tue 8:22 3.9 8:23 5.2 21 Wed 9:01 3.1 9:28 3.9 22 Thu 9:40 -2.3 19:22 4.4 20 Tue 8:22 3.9 8:23 5.2 21 Wed 9:01 3.1 9:28 3.9 23 Sun 10:44 -0.1 11:25 6.7 25 Thu 6 7:27 5.8 2:33 -1.3 30 Fri 3:20 4.9 3:31 -8.8 31 Sot 1 4:10 3.8 4:00 9,1	OCTOBER									
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29 Thu & 2:27 5.8 2:63 -1.3 30 Fel 3:20 4.9 3:61 -6.8										
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STAT YEAR/DATE WEEK 1987	YEAR/DATE	YEAR/DATE	YEAR/DATE	YEAR/DATE	YEAR/DATE	YEAR/DATE	YEAR/DATE	YEAR/DATE
1 0101 - 0103	0101 - 0102	0101 - 0107	0101 - 0106	0101 - 0105	0101 - 0104	0101 - 0102	0101 - 0101	0101 - 0107
2 0104 - 0110	0103 - 0109	0108 - 0114	0107 - 0113	0106 - 0112	0105 - 0111	0103 - 0109	0102 - 0108	0108 - 0114
3 0111 - 0117	0110 - 0116	0115 - 0121	0114 - 0120	0113 - 0119	0112 - 0118	0110 - 0116	0109 - 0115	0115 - 0121
4 0118 - 0124	_0117 - 0123	0122 - 0128	0121 0127_	01200126	_0119	01170123_	0116 0122	0122 - 0128
5 0125 - 0131	_0124 - 0130	0129 - 0204	01280203	0127 - 0202		01240130_	0123 0129	0129 - 0204
6 0201 - 0207	_0131 - 0206	0205 - 0211	02040210	0203 - 0209		01310206_	0130 0205	0205 - 0211
7 0208 - 0214	_0207 - 0213	0212 - 0218	02110217	0210 - 0216		02070213	0206 0212	0212 - 0218
8 0215 - 0221	0214 - 0220	0219 - 0225	0218 - 0224	0217 - 0223	0216 - 0222	0214 - 0220	0213 - 0219	0219 - 0225
9 0222 - 0228	0221 - 0227	0226 - 0304	0225 - 0303	0224 - 0302	0223 - 0229	0221 - 0227	0220 - 0226	0226 - 0304
10 0301 - 0307	0228 - 0305	0305 - 0311	0304 - 0310	0303 - 0309	0301 - 0307	0228 - 0306	0227 - 0305	0305 - 0311
11 0308 - 0314	0306 - 0312	0312 - 0318	0311 - 0317	0310 - 0316	0308 - 0314	0307 - 0313	0306 - 0312	0312 - 0318
12 0315 - 0321	0313 - 0319	-0319 - 0325	- 0318 - 0324	0317 - 0323	0315 - 0321	0314 - 0320	-0313 - 0319	-0319 - 0325
13 0322 - 0328	0320 - 0326	-0326 - 0401	- 0325 - 0331	0324 - 0330	0322 - 0328	0321 - 0327	-0320 - 0326	-0326 - 0401
14 0329 - 0404	0327 - 0402	-0402 - 0408	- 0401 - 0407	0331 - 0406	0329 - 0404	0328 - 0403		-0402 - 0408
15 0405 - 0411	0403 - 0409	0409 - 0415	0408 - 0414	0407 - 0413	0405 - 0411	0404 - 0410	0403 - 0409	0409 - 0415
16 0412 - 0418 _	0410 <u>-</u> 0416	-0416 - 0422	0415 - 0421	-0414 - 0420	0412 - 0418	0411 - 0417	-0410 - 0416	-0416 - 0422
17 0419 - 0425	0417 - 0423	-0423 - 0429	0422 - 0428	-0421 - 0427	0419 - 0425	0418 - 0424	-0417 - 0423	-0423 - 0429
18 0426 - 0502 19 0503 - 0509 	0424 - 0430 0501 - 0507 0508 <u>-</u> 0514 0515 - 0521	0430 - 0506 0507 - 0513 -0514 - 0520 -0521 - 0527	0429 - 0505 0506 - 0512 0513 - 0519 0520 - 0526	0428 - 0504 0505 - 0511 0512 - 0518 0519 - 0525	0426 - 0502 0503 - 0509 0510 - 0516 0517 - 0523	0425 - 0501 0502 - 0508 0509 - 0515 0516 - 0522	0424 - 0430 0501 - 0507 0508 - 0514 0515 - 0521	0430 - 0506 0507 - 0513 -0514 - 0520 -0521 - 0527
22 0524 - 0530	0522 - 0528	0528 - 0603	0527 - 0602	0526 - 0601	0524 - 0530	0523 - 0529	0522 - 0528	0528 - 0603
23 0531 - 0606	0529 - 0604	0604 - 0610	0603 - 0609	0602 - 0608	0531 - 0606	0530 - 0605	0529 - 0604	0604 - 0610
24 0607 - 0613	0605 - 0611	0611 - 0617	0610 - 0616	0609 - 0615	0607 - 0613	0606 - 0612	0605 - 0611	0611 - 0617
25 0614 - 0620	0612 - 0618	0618 - 0624	0617 - 0623	0616 - 0622	0614 - 0620	0613 - 0619	0612 - 0618	0618 - 0624
26 0621 - 0627	0619 - 0625	0625 - 0701	0624 - 0630	0623 - 0629	0621 - 0627	0620 - 0626	0619 - 0625	0625 - 0701
27 0628 - 0704	0626 - 0702	0702 - 0708	0701 - 0707	0630 - 0706	0628 - 0704	0627 - 0703	0626 - 0702	0702 - 0708
28 0705 - 0711	0703 - 0709	0709 - 0715	_0708 - 0714_	0707 - 0713	_0705 - 0711	0704 - 0710	0703 - 0709	0709 - 0715
29 0712 - 0718	0710 - 0716	0716 - 0722	0715 - 0721	0714 - 0720	0712 - 0718	0711 - 0717	0710 - 0716	0716 - 0722
30 0719 - 0725	0717 - 0723	0723 - 0729	0722 - 0728	0721 - 0727	0719 - 0725	0718 - 0724	0717 - 0723	0723 - 0729
31 0726 - 0801	0724 - 0730	0730 - 0805	0729 - 0804	0728 - 0803	0726 - 0801	0725 - 0731	0724 - 0730	0730 - 0805
32 0802 - 0808	0731 - 0806	0806 - 0812	0805 - 0811	_0804 - 0810_	0802 - 0808	0801 - 0807	_0731 <u>-</u> 0806_	_0806 - 0812
33 0809 - 0815	0807 - 0813	0813 - 0819	0812 - 0818	0811 - 0817	0809 - 0815	0808 - 0814	0807 - 0813	_0813 - 0819
34 0816 - 0822	0814 - 0820	0820 - 0826	0819 - 0825	0818 - 0824	0816 - 0822	0815 - 0821	0814 - 0820	_0820 - 0826
35 0823 - 0829	0821 - 0827	0827 - 0902	0826 - 0901	0825 - 0831	0823 - 0829	0822 - 0828	0821 - 0827	_0827 - 0902
37 0906 - 0912 38 0913 - 0919	0828 - 0903 0904 - 0910 0911 - 0917 0918 - 0924	0903 - 0909 0910 - 0916 0917 - 0923 0924 - 0930	0902 - 0908 0909 - 0915 0916 - 0922 0923 - 0929	0901 - 0907 0908 - 0914 0915 - 0921 0922 - 0928	0830 - 0905 0906 - 0912 0913 - 0919 0920 - 0926	0829 - 0904 0905 - 0911 0912 - 0918 0919 - 0925	_08280903_ _09040910_ _09110917 _09180924	_0903 - 0909 _0910 - 0916 _0917 - 0923 _0924 - 0930
40 0927 - 1003 - 41 1004 - 1010 - 1017 42 1011 - 1017	0925 - 1001	1001 - 1007	0930 - 1006	_0929 <u>- 1005</u> _	_0927 - 1003	0926 - 1002	0925 - 1001	-1001 - 1007
	1002 - 1008	1008 - 1014	1007 - 1013	1006 - 1012	1004 - 1010	1003 - 1009	1002 - 1008	-1008 - 1014
	1009 - 1015	1015 - 1021	1014 - 1020	1013 - 1019	1011 - 1017	1010 - 1016	1009 - 1015	
- 44 1025 - 1031 45 1101 - 1107	1030 - 1105	1022 - 1028 1029 - 1104 1105 - 1111 1112 - 1118	1021 - 1027 _1028 - 1103_ 1104 - 1110 1111 - 1117	1020 - 1026 1027 - 1102 1103 - 1109 1110 - 1116	1018 - 1024 -1025 - 1031 	1017 - 1023 1024 - 1030 1031 - 1106 1107 - 1113	1016 - 1022 1023 - 1029 1030 - 1105 1106 - 1112	1022 - 1028 1029 - 1104 -1105 - 1111 1112 - 1118
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